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page 12

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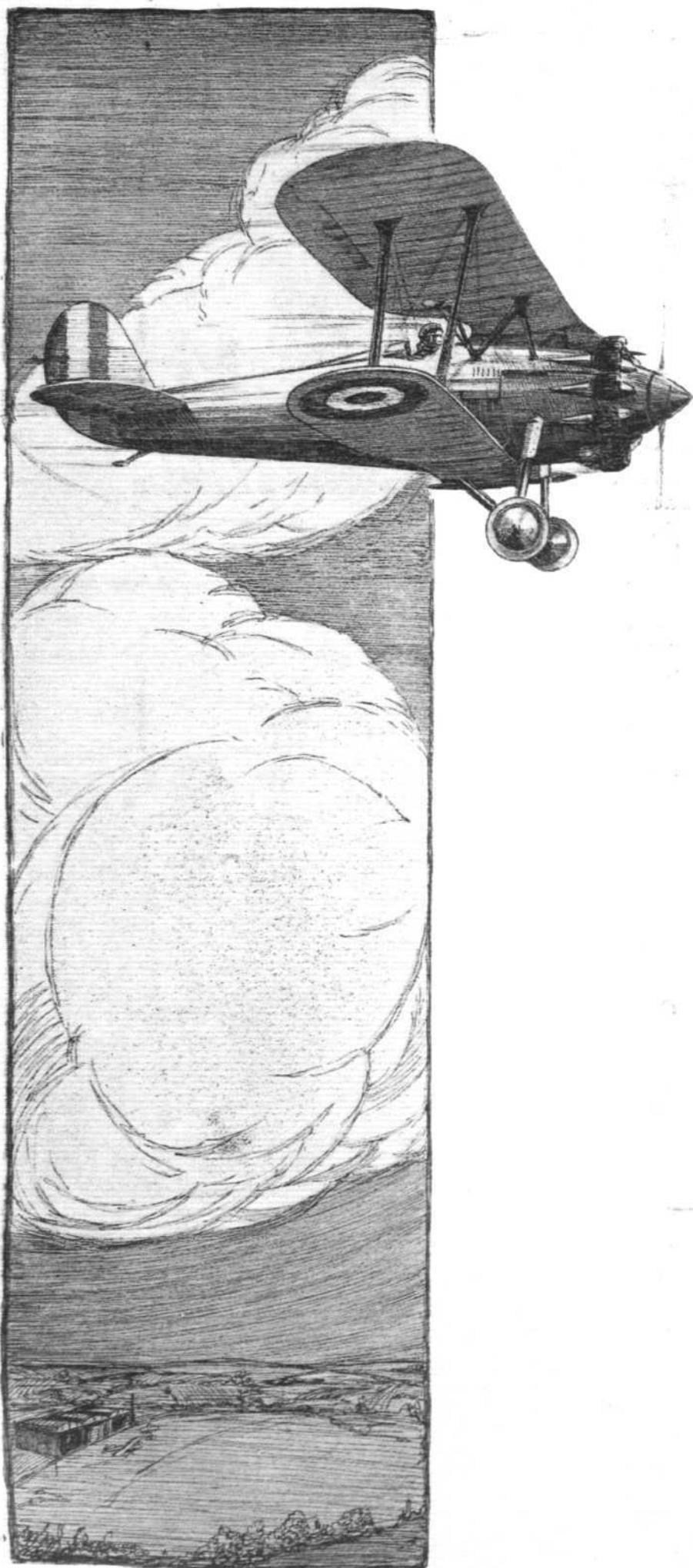
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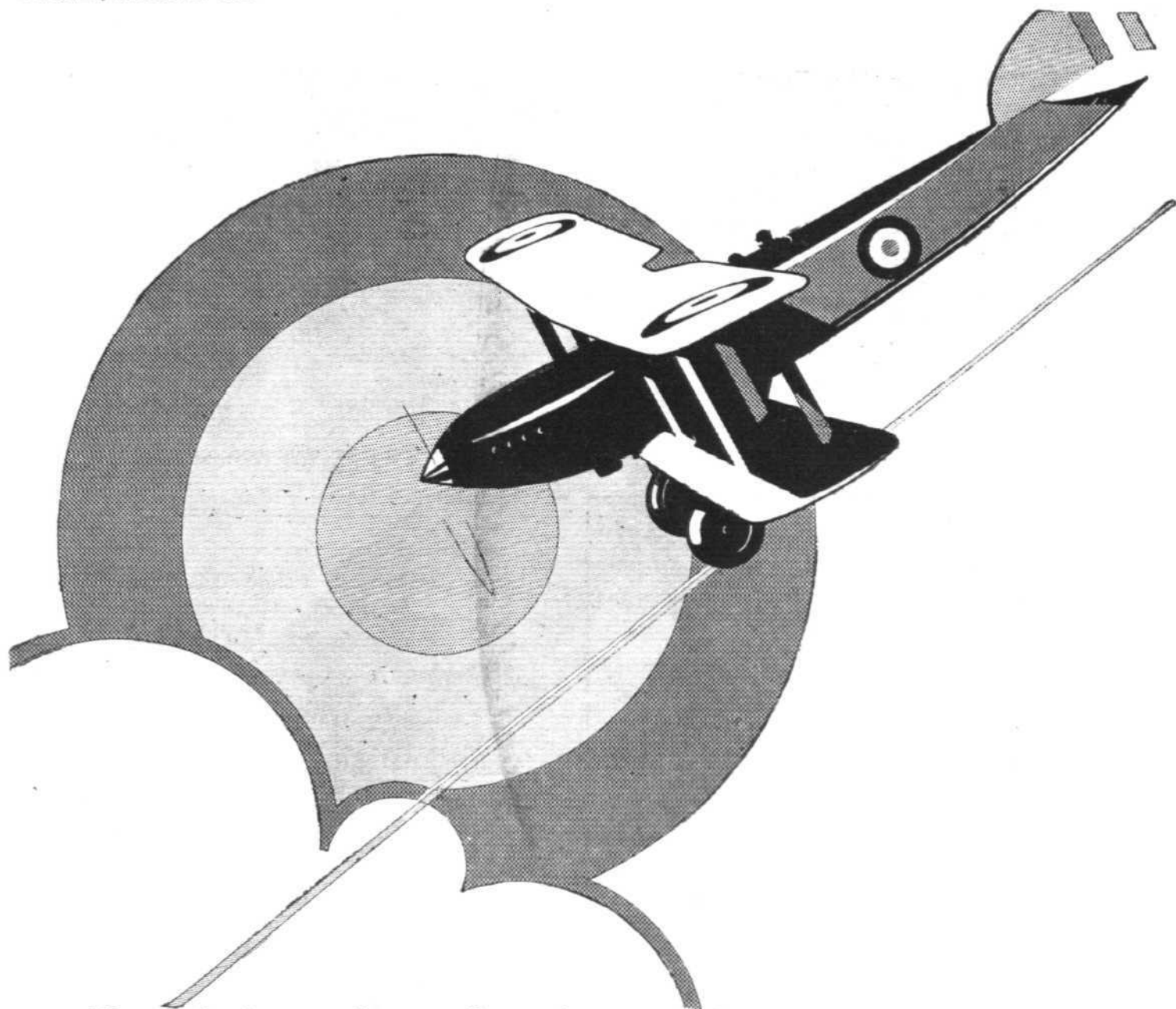
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No. 1060. (No. 16. Vol. XXI.)

APRIL 18, 1929

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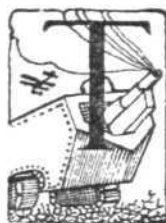
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DIARY OF CURRENT AND FORTHCOMING EVENTS

Club Secretaries and others desirous of announcing the dates of important fixtures are invited to send particulars for inclusion in this list—

1929.	
April 18	.... Lecture, "R.101," by Col. V. C. Richmond, before R.Ae.S. and Inst.Ae.E.
April 19	.... A.I.D. Technical Staff Association Dinner, Hotel Russell.
April 20	.... 28 Sq.(R.A.F.) Old Boys' Association Re-union.
April	.... Exhibition of Sporting and Touring Aircraft, Switzerland.
April 25	.... Lecture, "By Flying Boat to India," by Sqdn. Ldr. C. L. Scott, before R.Ae.S. and Inst.Ae.E.
May 2	.... Lecture, "Wireless for Commercial Aircraft," by Capt. D. Sinclair, before R.Ae.S. and Inst.Ae.E.
May 9	.... Lecture, "Civil Aviation Prospects in East Africa," by F. Symms, before R.Ae.S. and Inst.Ae.E.
May 20	.... Northampton Air Pageant.
May 23	.... Lecture, "Lubrication of Aircraft Engines," by F. A. Foord, before R.Ae.S. and Inst.Ae.E.
June 19-22	.... F.I.A. Conference, Copenhagen.
June 27-30	.... Rotterdam International Air Meeting.
July 5-6	.... King's Cup Race.

EDITORIAL COMMENT



A Good Beginning

THE inauguration of the first real Empire air route has been an unqualified success. Of that there cannot be the slightest doubt. On the first outward flight there was a very slight delay, it is true, but it was one of a few hours only, a delay that is to be regarded as insignificant compared with the length of the route. This delay was, as our readers know, caused by the turning back of the trans-desert machine owing to a severe sandstorm. Such obstacles are to be expected on a route like the Cairo-Karachi, and we personally rather welcome the occurrence of it on the first outward flight, as it provided an opportunity for testing the capacity of the organisation of Imperial Airways, Ltd. There is little doubt that a schedule could have been drawn up whereby the time taken for the transport of mails from London to Karachi could have been reduced by at least a day. But that would have left precious little margin for making up unforeseen delays, and we think Imperial Airways have done rightly in so planning its schedule that even such delays as that caused by the sandstorm can be made up by a determined "hustle."

FLIGHT has, on occasion, expressed doubts as to the ability of passengers to face prolonged journeys by air unless aircraft are made much more silent than is the case at present. Air Vice-Marshal Sir Vyell Vyvyan appears to have disproved our contention rather effectively by making the *double journey* as a passenger on the inaugural flight. Leaving Croydon in the Armstrong-Whitworth "Argosy" on March 30, Sir Vyell alighted from the same machine at Croydon on April 14, having travelled something like 10,000 miles in about 15 days, and without any rest in between the outward and home-ward journeys! Granted that the Air Vice-Marshal may have stronger nerves than the average civilian passenger, and that he is not altogether a disinterested party, there is no denying that his reply to a question at Croydon last Sunday as to how he had enjoyed the trip, "I am ready to start off at once and do it all over again," sounded perfectly sincere. And Sir Vyell certainly looked extremely fit. Thus we are ready to admit that FLIGHT may have been unduly

pessimistic in its view that prolonged flying would, at present, prove rather too trying for the ordinary passenger. So much the better. A good deal of the present noise will doubtless be overcome in time, and if already flights of 10,000 miles can be made without undue fatigue, the prospects for the future are fairly bright.

Judging from the amount of space devoted to the inaugural air service by the press, both at home and abroad, and the news items relating to it sent out from a number of continental broadcasting stations, there can be no doubt that Europe in general realises the significance of the establishment of the new British Empire air route. Moreover, during the journey the Secretary of State for Air, Sir Samuel Hoare, was met and entertained by prominent officials in the various countries through which the new route passes, and it should need no stressing by us to point the obvious moral that such personal contact between our Secretary of State for Air and ministers and prominent officials of other nations cannot but do a great deal of good in bringing closer together those nations and ourselves. And what is true of the Secretary of State for Air is equally true of ordinary fare-paying passengers when the new service is ready to cater for them. The personal contact is ever worth much more than reams of written communications, and a weekly passenger service in each direction, passing through, and operated by friendly agreement with, other countries is bound to result in a more intimate knowledge one of the other. And, nearly always, to know another nation well is to like it better. Dislike and distrust are almost without exception caused by lack of knowledge, and the more we can get to know the peoples on the road to India, the better for the future.

The new Empire air route is, at first at any rate, regarded as primarily a mail service. The bulk of mails carried on the first few flights has been at least encouraging. Allowing for the fact that doubtless a large percentage was a result of the novelty of the service, an average weight of mails of 365 lbs. is not bad. That this figure will increase enormously once it has been established that the air mail can give good reliability is not to be doubted. The saving in time is so great, and the surcharge so reasonable that it is permissible to express the belief that before very long the bulk of the mails to India will be sent by air. And when that time comes, it will undoubtedly be sound policy to employ separate types of aircraft for mails and passengers. In the meantime, it is satisfactory to be able to record that so far the mails have "arrived on time."



As far as this country is concerned, the next step, now that we have got the England-India section working, should be the African route. During his brief visit Sir Samuel Hoare was able to see for himself the northern section of this, and we believe that no one is more fully alive to its importance than is the Secretary of State for Air, so that one may hope that no avoidable delay will be permitted to occur in getting going on this route also.

Not unconnected with the Cairo-Cape air route is the announcement that recently the Union Government has agreed to the application by a company

known as Union Airways, Ltd., for a subsidy for an internal air mail service. The scheme is, we understand, to establish air mail routes between Cape Town and Port Elizabeth, with two lines branching off at the latter town, one running along the coast to East London and Durban, and the other inland to Bloemfontein and Johannesburg. The service will doubtless link up with the southern section of the Imperial Airways line from Egypt.

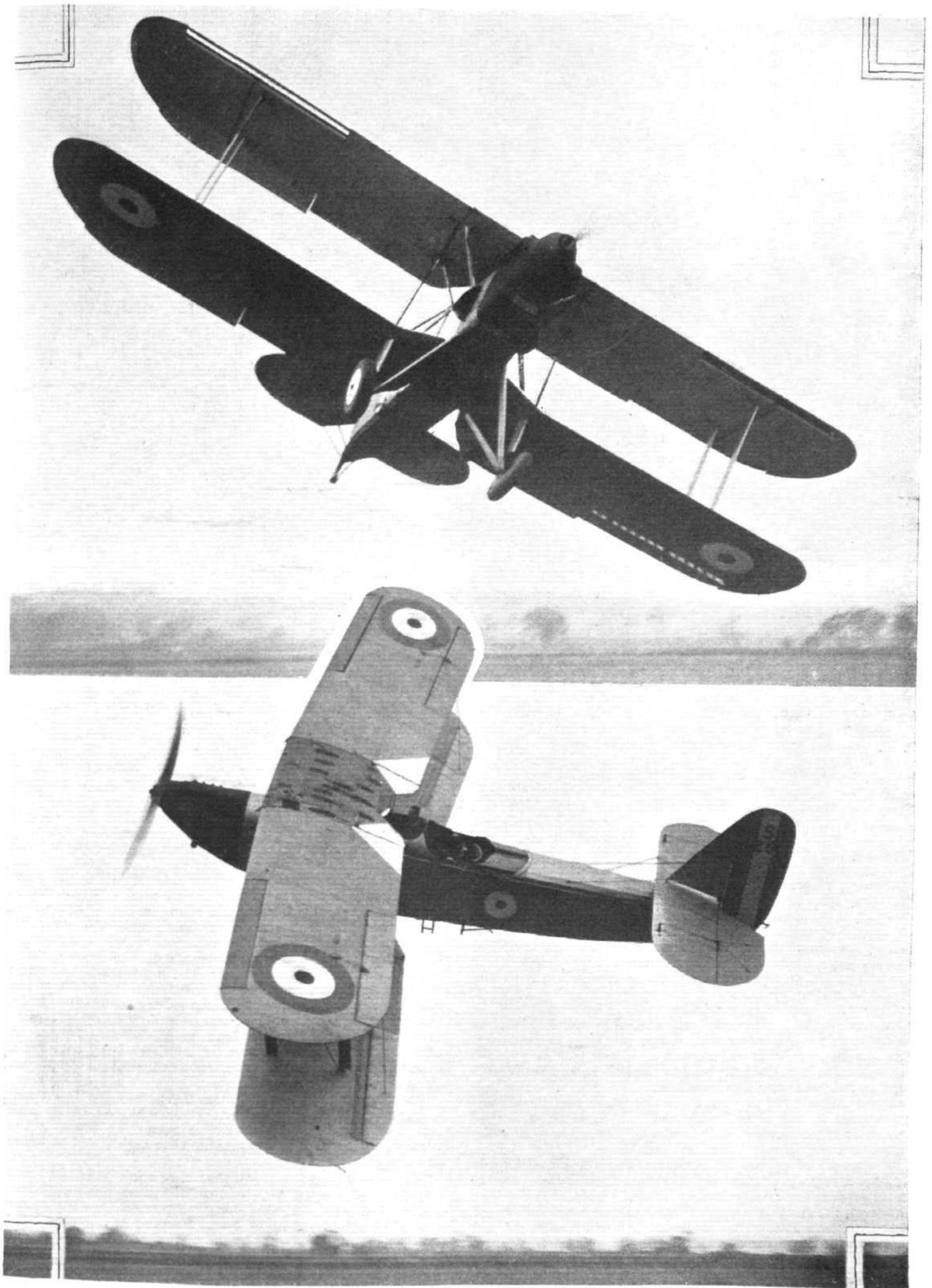
In India also there are indications that local interests are considering the establishment of local "links in the chain" of Empire air communications. Negotiations are not as far advanced as those in South Africa, but the very fact that tenders are now before the Government of India for the establishment of an air service between Karachi and Delhi is significant. Bombay is agitating for an air service to join up with Karachi, and the establishment of such a line would reduce the time between those two points by something like 30 hours.

Altogether it is obvious to anyone who takes the trouble to study the events of the last few weeks that the British Empire is at last beginning to tackle Empire aviation in real earnest, and although we have been tardy in starting, the outlook for the future is extremely promising.



It is a somewhat curious coincidence that just as British Empire aviation is showing signs of really making a serious start, Germany threatens to curtail her aerial services. There has been a small, although very vocal, section in this country which never got tired of holding up Germany as a shining example for Great Britain to follow in the matter of civil aviation. Great Britain was being left behind; Great Britain was a fourth-rate nation in the matter of civil aviation; Great Britain was, in fact, asleep. Yet it now rather looks as if our policy of making haste slowly may actually, as has happened over and over again in other directions in the past, be the soundest in the long run. Germany, with no Air Force to maintain, "went the whole hog" on civil aviation, and by liberal State subsidies, local subscriptions from cities and banking interests, etc., established a network of air lines which became the envy of the rest of the world.

With the greatest possible admiration of Germany's achievements in civil aviation, one cannot very well arrive at any conclusion other than that this wonderful network was largely illusory, was a thing which "looked well on paper," but which was, as regards large sections of it, of no real practical advantage. That appears to be the logical interpretation of the proposed "cuts" which now threaten German civil aviation. And large sections of the community very naturally oppose the cuts very strongly. Yet it is more than likely that, from a national point of view, the proposed cut is justified. Herr Wronsky, in his lecture to the Royal Aeronautical Society some time ago, admitted that a large proportion of the takings of the *Lufthansa* was in the form of subsidies. We believe the figure was something like 70 per cent. That fact might in itself have indicated that there was something rather unhealthy about Germany's network of air lines. The present reports from Berlin will not, therefore, come as any great surprise to those who have given the subject serious thought.



["FLIGHT" Photographs]
"THROWING IT ABOUT" : Capt. Blake, Blackburn's chief test pilot, putting the "Ripon" torpedoplane through its paces. The engine is a Napier "Lion." Note the Handley Page control slots, which are connected to the ailerons. A float undercarriage can be fitted.

ENGLAND-INDIA-ENGLAND

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15½ days



["FLIGHT" Photographs]

THE FIRST AIR MAILS FROM INDIA : The Armstrong-Whitworth "Argosy" airliner, "City of Glasgow," arrives at Croydon three minutes ahead of time, and delivers the first air mail from India, on April 14, 1929.

TO India and back in fifteen days! Such is the latest record achievement of British Civil Aviation. At 2.13 p.m.—two minutes before schedule time—on April 14, the Imperial Airways Armstrong-Whitworth "Argosy" airliner, "City of Glasgow," piloted by Capt. O. P. Jones, completed the final stage of the first India-England Air Mail, which followed the successful inauguration, on Mar. 30, of the first outward journey. The mails—520 lbs. weight, or about 15,000 letters—left Karachi (per D.H. "Hercules") on April 7, and there were also four "Official" passengers from India—regular passengers are not, at present, being carried. They were Air Vice-Marshal Sir Geoffrey Salmond, Air Officer Commanding Royal Air Force, India, who was returning home on four months' leave; Viscount Chetwynd, Vice-Chairman of Imperial Airways; his daughter, the Hon. Eve Chetwynd; and Air Vice-Marshal Sir Vyell Vyvyan, a Director of Imperial Airways, who made the outward trip from England to India as well. Sir Samuel Hoare, Secretary of State for Air, made a fifth passenger at Alexandria, after having completed some 5,000 miles flying to the borders of Uganda and back in connection with the proposed African air route.

Over the first section of the route home—Karachi to Alexandria—the "Hercules" made good progress, being, as reported last week, well ahead of schedule time at Baghdad. The Indian mail, it is stated, was so heavy that it was not possible to take in the Iraq mails at Baghdad, and these were sent on to Alexandria by the R.A.F.

From Alexandria to Genoa all the mails and passengers transferred to the Short "Calcutta" flying-boat, and after the short train journey from Genoa to Basel, the final stage was completed in the "Argosy" machine.

A number of people gathered at Croydon aerodrome on Sunday afternoon to greet the travellers from India. Among those present were Lady Maude Hoare, Air Marshal Sir John Salmond, Sir Atul Chatterjee (High Commissioner for India), Col. Stewart Patterson (Political Aide-de-Camp to the Secretary of State for India), Sir Samuel and Lady Instone, Sir Alan Cobham—who carried out the Survey Flight of the London-India Air Route in 1924-5 on a D.H.50, with Sir Sefton Brancker as passenger—and Lady Cobham, Mr. G. Woods Humphrey, Mr. F. G. L. Bertram, and several other well-known personalities in the World of Aeronautics.

Describing his experiences of this first Empire Air Route, Sir Samuel Hoare said:—

"I think this last fortnight has been a very important one

in the history of civil aviation. First of all, there is this successful opening of the mail service, which has gone extraordinarily well. The outward mail got to India in time, and the inward mail, as you see, has arrived absolutely on the tick. Few people can have any idea of the enormous amount of work involved. I wrote a letter in London to the Viceroy of India," Sir Samuel Hoare added, "which was delivered in Delhi 7½ days afterwards. Lord Chetwynd, Sir Geoffrey Salmond, and Sir Vyell Vyvyan were having a meal in Karachi last Sunday and will be in their own homes in London and the country to-night. Miss Chetwynd had until last Sunday never been in an aeroplane before, and the enterprise and courage of the younger generation augurs well for the future of British aviation generally.

"I think my own journey does show once again the great regularity and safety of not only British civil aviation, but of British military flying services also. After I arrived in Africa I got into a Fairey 3F machine, and with other Air Force officials went off to see as much as we could of the projected African route. We averaged, I suppose, about 750 miles a day. We struck the Sudan in probably the hottest month of the year, and yet we completed the whole of our programme, getting almost to Uganda before we turned back. Because of the heat, it was often necessary to fly at a very great height, sometimes as high as 12,000 ft. It was an experience to come down from the comparatively cool upper air on to the ground where there was a temperature of between 115 and 120 degrees.

"We hope that the service from Egypt to Cape Town may be started on April 1 next year. It may be possible to have some sections of it working before then. To get over the problems of the heat it is probable that flights will be made very early in the morning.

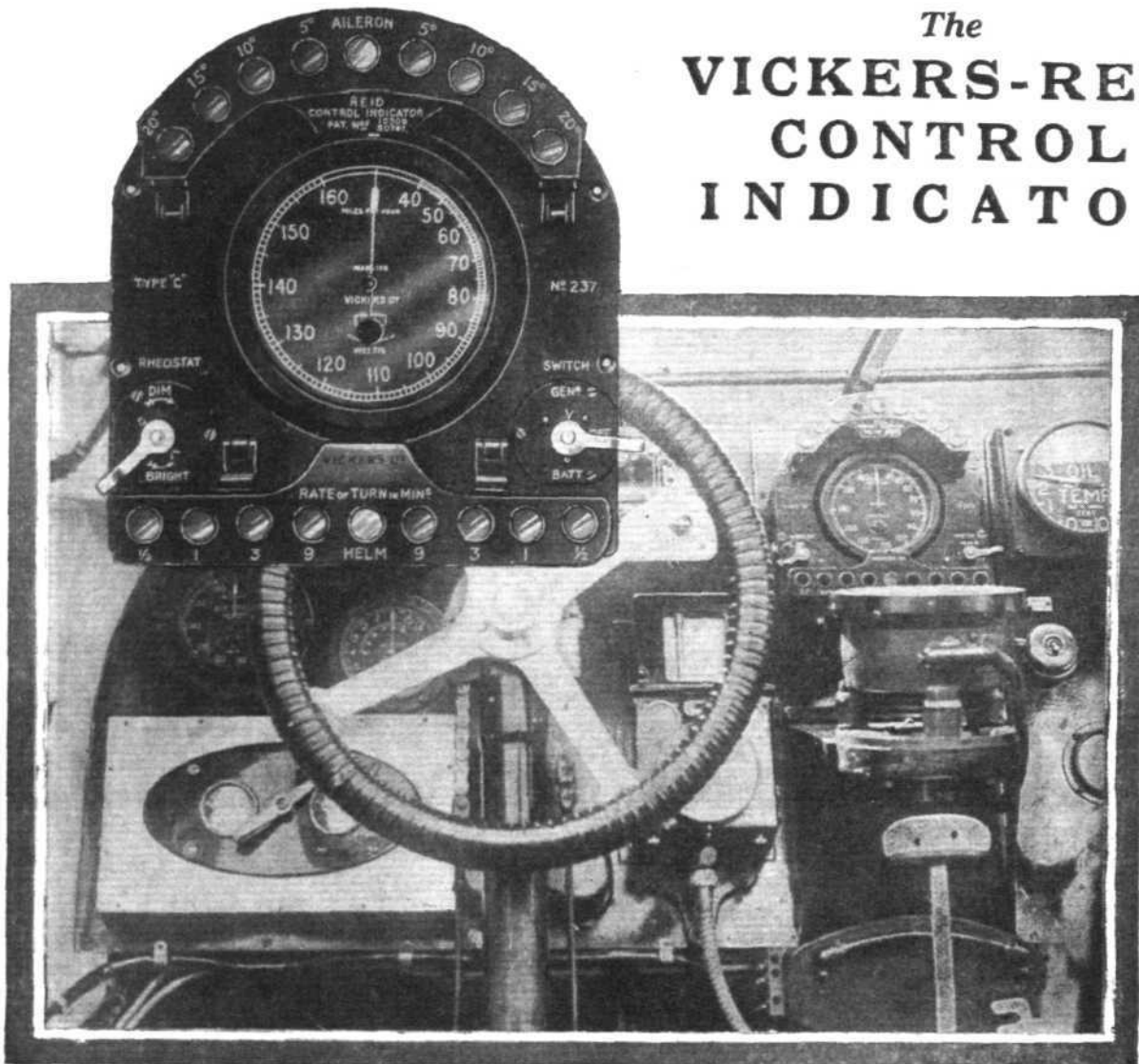
"It seems strange to think that only a few days ago I was sleeping in the open air, because the heat prevented rest indoors, and was awakened by hippopotami snorting in the Nile. The very next night I was sleeping in a garden with two hyenas running about outside and making the most awful noises."

Sir Vyell Vyvyan, speaking of his 10,000-mile flight to India and back, said their total flying time was about 54 hours both ways and in the enclosed cabin machine, as used on this route, the heat was much less apparent—at 6,000 ft. over the Persian Gulf they were quite comfortable. The only troubles were sand storms, and as it was not possible to fly over all of them plenty of time had to be allowed in case of delay through

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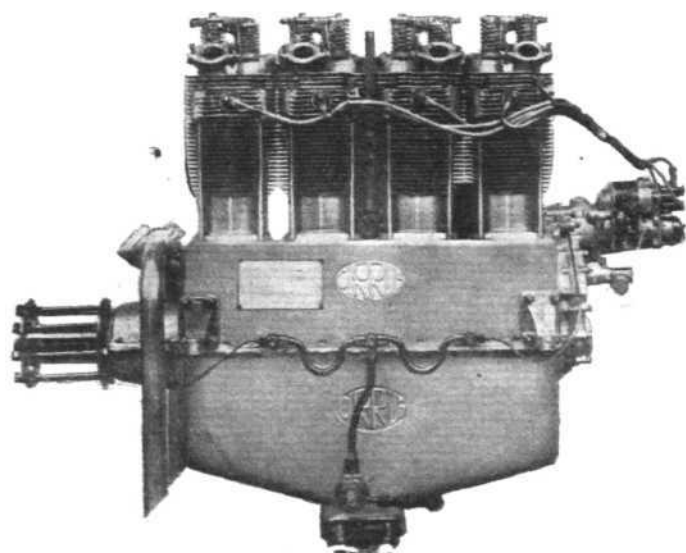
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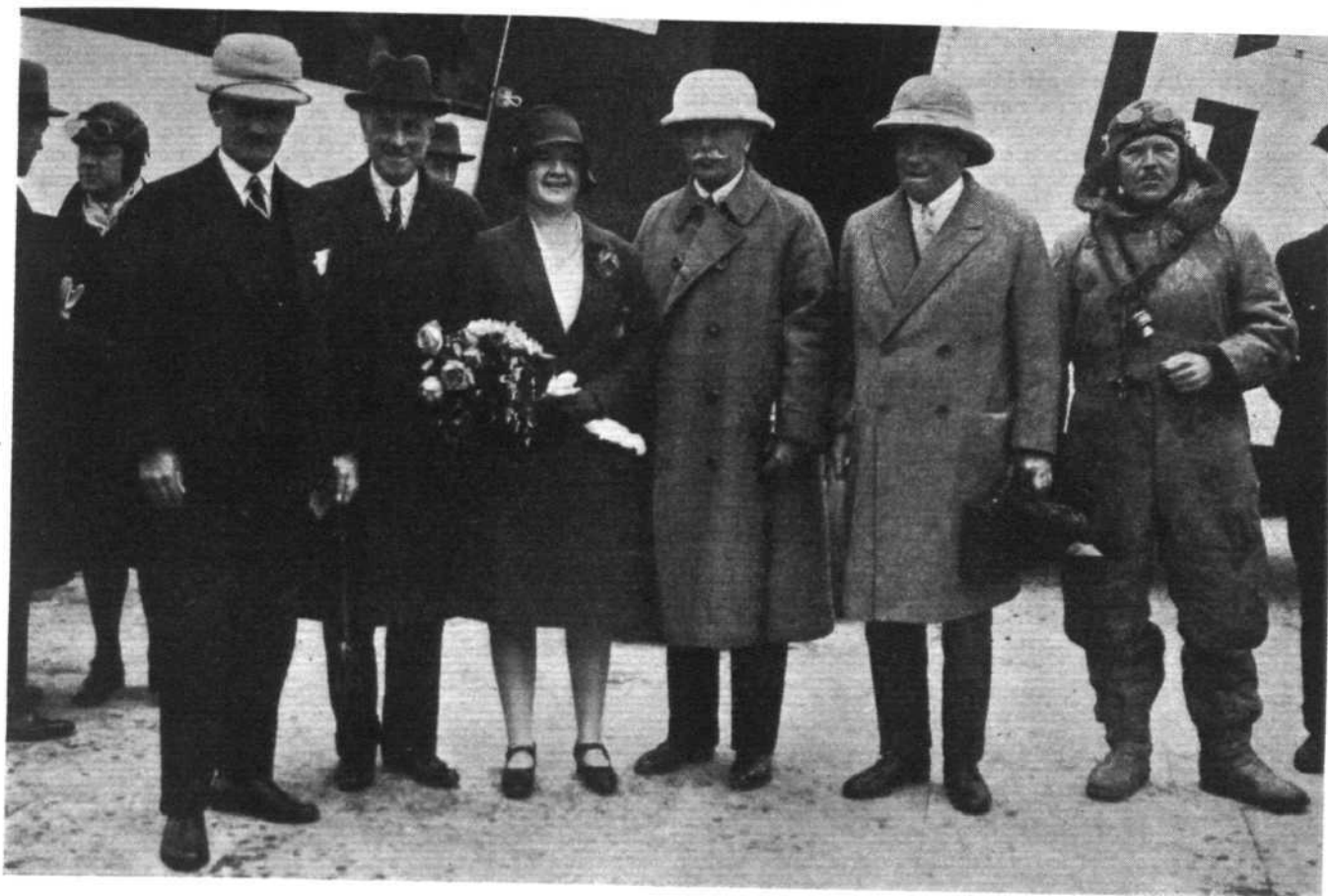
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INDIA-ENGLAND AIR MAIL : The passengers of the first Westward trip. Reading from left to right—Maj. H. G. Brackley (second pilot) ; Air Vice-Marshal Sir Geoffrey Salmond ; Sir Samuel Hoare (who joined the party at Alexandria) ; the Hon. Eve Chetwynd ; Viscount Chetwynd ; Air Vice-Marshal Sir Vyell Vyvyan ; and Capt. O. P. Jones, pilot of the "City of Glasgow."

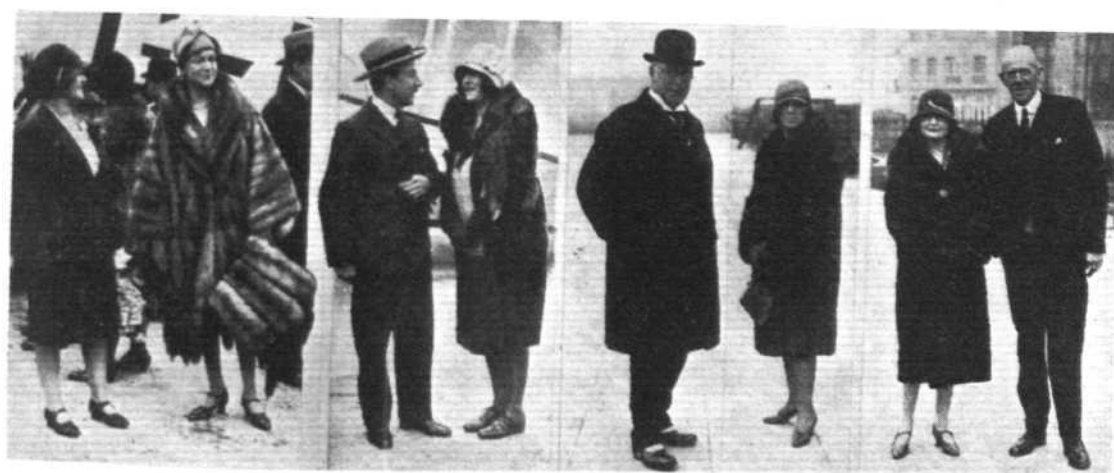
them. It was owing to sand storms that, on several occasions, they had to fly at night. It was, however, a most pleasant experience, and the brilliant starshine was one of the loveliest sights he had ever seen. Although there was no moon or ground organisation for night flying, the pilots were quite happy as they knew the route so well.

He said he was confident that when the service was properly organised there would be plenty of passengers ; at present there was a difficulty regarding accommodation for passengers at one or two of the stopping places. "I am ready," he added, "to make the journey again right away !"

The second outward mail, which left Croydon on April 6, arrived at Karachi on April 13, one hour before schedule time. Fog and low cloud prevented the third London-India

Mail from being despatched from Croydon by air. It was therefore sent by car to Penhurst and there transferred to a Handley Page air liner which proceeded on the first section to Basel.

Air Vice-Marshal Sir Sefton Brancker, Director of Civil Aviation, who has been called abroad on an official mission at short notice and will be away for about a fortnight, was a passenger on this machine. He is going to Athens to negotiate with the Greek authorities for the continuance of the Imperial Airways London-India Air Mail Service. He was accompanied by Colonel H. Burchall, assistant general manager of Imperial Airways. Pending a final agreement, the Greek Government has given temporary sanction for the operation of the Air Mail Service through Greek territory.



INDIA-ENGLAND AIR MAIL : Some of those present at Croydon to greet the first arrival from India. From left to right—The Hon. Eve Chetwynd, the first woman to fly from India to London, with Lady Maude Hoare, the first woman to fly from London to India ; Sir Alan and Lady Cobham—Sir Alan surveyed the London-India air route in 1924-25 ; Sir Samuel and Lady Instone ; Mrs. Richard (wife of Maj. Richard, Chief Aerodrome Officer, Croydon) ; and Lieut.-Comdr. S. E. Deacon, Officer-in-charge of Lympne.

THE IRVING-NAPIER LAND RECORD

"MAJ. SEGRAVE has just lately proved to the whole world that a British motor-car with a British motorist inside is the fastest thing that travels on dry land," declared the Prince of Wales during his speech at the Royal Automobile Club on April 15, when a dinner was given in honour of Maj. H. O. D. Segrave, who has just returned from America, where he set up a world's speed record of 231.36 m.p.h. in the "Golden Arrow" car, designed by Capt. J. S. Irving and fitted with a Napier aero engine. Sir Arthur Stanley was in the chair, and other guests of the club were Mrs. Segrave, Capt. J. S. Irving, Mrs. Irving, Mr. Scott Paine (builder of the motor-boat "Miss England," with which Maj. Segrave won the international motor-boat speed trophy), and Mrs. Scott Paine. There was also a large gathering, representative of various Government Departments, of manufacturers and traders in the British motor industry, and of every branch of transport.

In the course of his speech the PRINCE also said that another aspect of the great British achievement was that the British motor-car, the "Golden Arrow," which enabled Maj. Segrave to put up his world's record, was more than a mere motor-car. It was the British motor-car manufacturers' challenge to the world. Every item that went to make it up, every item that went to make up a marvellous piece of craftsmanship, was manufactured in this country. The driver, the designer, and all the British staff responsible for the organisation and carrying out of the great feat had done nothing else but demonstrate and emphasise what British craftsmanship could do. And he knew Maj. Segrave would have him say a word of congratulation to the designer of the "Golden Arrow," Capt. Irving, and to the staff of British mechanics who built the car, some of whom went over to America, and who were able to provide him with such a magnificent and trustworthy article for the job. There were many words one wanted to say, but great thanks were due to Mr. Horne for having made the "Golden Arrow" possible.

MAJ. SEGRAVE rose to speak amidst a great reception. He paid a hearty tribute to the work and assistance he had received from Capt. Irving and from Mr. Hubert Scott Paine.

Describing the sensation of driving a racing car at a high speed, he said it was first the unleashing of a tremendous mechanical force under one, and gradually a feeling that the car was getting a little out of human control. That was a

peculiar sensation but none the less true. He mentioned that he spoke to Mr. Bible in America just before the round which had such a tragic end, and Mr. Bible told him that his car seemed to get out of control when he took his foot off the accelerator, and he (Maj. Segrave) replied that the car would do so if he took his foot off suddenly, the reversal of the stresses in the car being so tremendous.

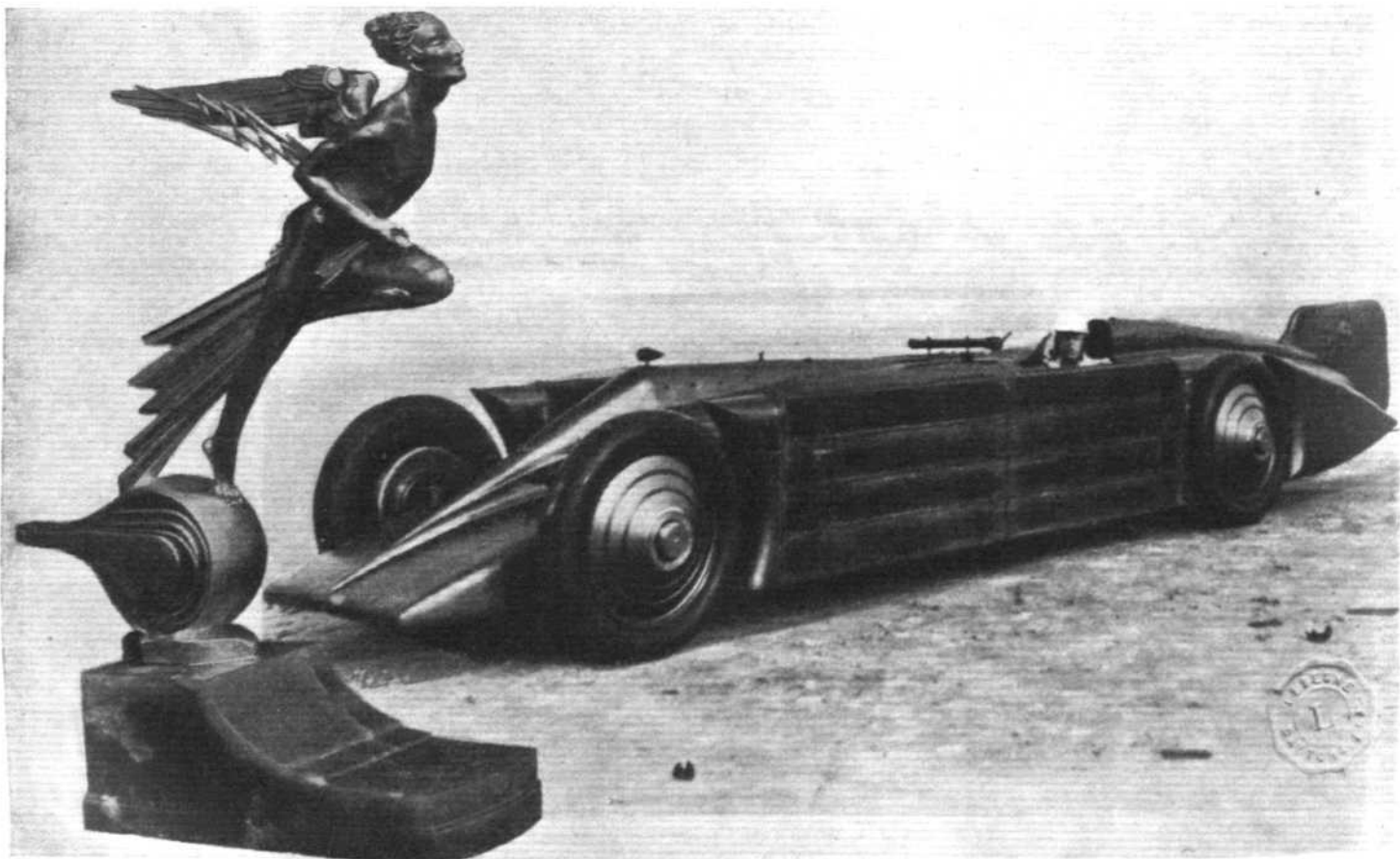
Mr. Bible thanked him and said he would stop more slowly. Maj. Segrave added that he thought what happened was that Mr. Bible's foot slipped off the accelerator and he decelerated too rapidly, with the result they all knew. Maj. Segrave expressed his debt of gratitude to the three fine sportsmen who assisted him to get back the two records, and remarked that his success was a tribute to British engineering.

Sir CHARLES WAKEFIELD then asked Maj. Segrave to accept the International Trophy for Maximum Speed, which bore the name of Sir Charles as the donor. Maj. Segrave, he said, had won many victories on land and sea, but none more wonderful and more timely than that which they now celebrated. It triumphantly vindicated British skill, both in design and workmanship, and it confirmed in unmistakable fashion their high opinion of the cool courage and quiet determination of the central figure in a marvellous and heroic achievement. The trophy was for the eventual custody of the Royal Automobile Club.

Sir PHILIP SASSOON, in reply to the toast of the guests, proposed by the chairman, said the value of these excessive speeds was to be found in the technical experience which was gained. Maj. Segrave's achievements could not fail to be a magnificent advertisement for British designing and material, and could not fail to bring orders to British firms.

Capt. J. S. IRVING, designer of the "Golden Arrow," also replied, and said that Maj. Segrave was the man behind the whole effort. He also paid a tribute to the staff of mechanics.

On Maj. Segrave's arrival in this country on April 12, it was announced that H.M. the King proposed to confer a knighthood upon him. Maj. Segrave received a great welcome in London on April 13. He was received by representatives of the Government and the motoring industry and civic bodies. The Lord Mayor of London (Sir Kynaston Studd) and Sir Charles Wakefield welcomed him at Waterloo Station, and at the Westminster Hall he was received by Mr. Douglas Hacking, Secretary to the Department of Overseas Trade.



Maj. H. O. D. Segrave in his Irving-Napier car, the "Golden Arrow," with which he established the world's land record of 231.36 m.p.h. in America. The Wakefield Trophy on the left, was presented to Maj. Segrave by Sir Charles Wakefield at the dinner given by the Royal Automobile Club on April 15, which the Prince of Wales attended.



Twenty-one years ago, an aeroplane rose uncertainly into the air. It didn't stay there long. Just long enough to make history. For nothing British had ever before left the ground. Three years later a seaplane made itself famous in just the same way.

In 1917, there was evolved the first aeroplane in which scientific flying instruction became possible. A year later, the R.A.F. were able to use for the first time one type of machine and one only for training pilots.

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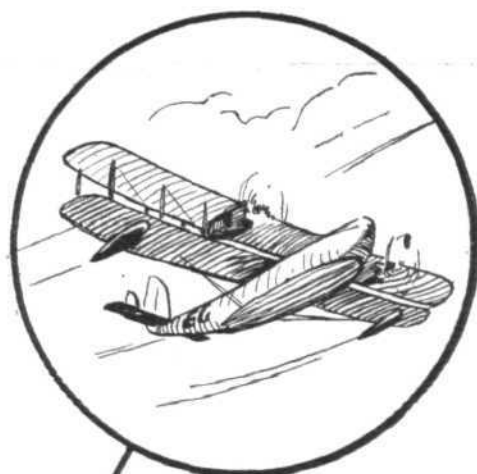
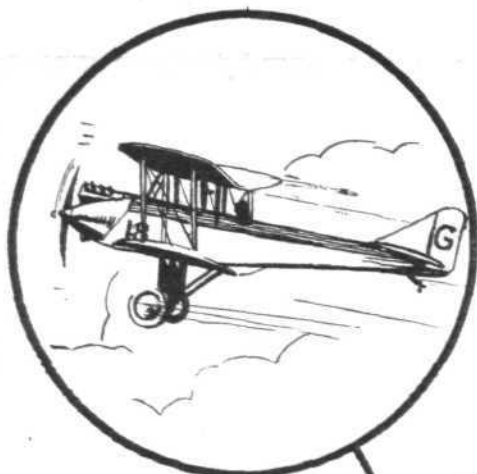
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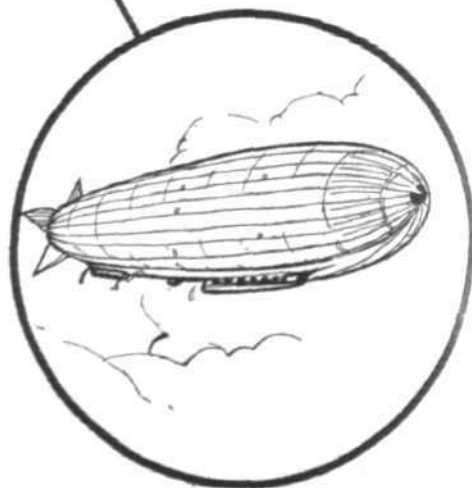
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SCHNEIDER TROPHY CONTEST

We give below some notes, which we think may be of interest, on this year's Schneider Trophy Contest, which takes place in the Solent on September 6 and 7.

Committee.—*Royal Aero Club*: Lieut.-Col. M. O'Gorman, C.B. (Chairman), Lieut.-Col. W. A. Bristow, Lieut.-Col. M. O. Darby, O.B.E., Capt. C. B. Wilson, M.C. *Air Ministry*: Major J. S. Buchanan, O.B.E., Squadron-Leader R. L. G. Marix, D.S.O., R. H. S. Mealing, Wing-Commander S. W. Smith, O.B.E. *Society of British Aircraft Constructors*: Commander James Bird, H. Burroughes, H. T. Vane, C.B.E., Lieut.-Col. L. F. R. Fell. *Admiralty*: Capt. C. F. Harris, R.N. *Secretary*: H. E. Perrin.

Entertainment and Reception Committee.—Air Vice-Marshal Sir W. S. Brancker, K.C.B., A.F.C. (Chairman), A. J. A. Wallace Barr, C. R. Fairey, John Lord, Capt. C. B. Wilson, M.C.

Press and Publicity Committee.—Lieut.-Col. W. A. Bristow (Chairman), Lieut.-Col. L. F. R. Fell, F. H. Jones, Major R. H. Mayo, O.B.E., C. P. Robertson.

Berthing Committee.—Capt. R. St. P. Parry, D.S.O., M.V.O., King's Harbour Master, Portsmouth, representing the Commander-in-Chief, Portsmouth; Capt. S. N. Braithwaite, representing the Southampton Harbour Board; Commander James Bird, representing Royal Aero Club; Wing-Commander S. W. Smith, O.B.E., R.A.F., representing Air Officer Commanding, Coastal Area.

Sea Control Committee.—Capt. J. A. G. Troup, R.N., and Capt. M. K. Horton, D.S.O., R.N., representing the Commander-in-Chief, Portsmouth; Capt. S. N. Braithwaite, representing the Southampton Harbour Board; Commander James Bird, representing the Royal Aero Club; Wing-Commander S. W. Smith, O.B.E., R.A.F., representing the Air Officer Commanding, Coastal Area.

Royal Aero Club "Liner."—The following notice has been issued to the members of the Royal Aero Club: Members of kindred societies and associated light aeroplane clubs wishing to avail themselves of the accommodation on the ss. *Orford*, are requested to apply to the Royal Aero Club, in the first instance, for the necessary application form.

In this connection the Royal Aero Club has entered into an arrangement with the Orient Steam Navigation Company for the ss. *Orford*, 20,000 tons to be the official ship of the club for the accommodation of the members and their friends, including kindred societies and associated light aeroplane clubs. The ship will be moored on the starting and finishing line of Ryde Pier. Fares (including food and accommodation, but excluding wines, &c.) for the period from Friday evening,

September 6, until Sunday evening, September 8, range from 7 guineas to 25 guineas per berth. The accommodation of the ship is 550 berths in single and double cabins.

The range of prices is as follows:—Guineas: 7, 7½, 8, 8½, 9, 11, 12, 13, 13½, 14, 14½, 15, 15½, 16, 17, 18, 20, 22, 25.

It is hoped it may be possible for members, who wish to do so, to join the ship on Thursday, September 5, and, in the event of a postponement, to remain on board beyond the Sunday. Members joining Thursday or remaining beyond the Sunday will be required to pay an appropriate additional fare. The ship will not in any case be available beyond Wednesday, September 11.

It is not possible, at this early date, to give full details of the programme, but the following outline is given for the guidance of the members and is subject to modifications as circumstances may require:—Embark from Portsmouth Friday afternoon. Ship will remain at her berth off Ryde Pier until after race on Saturday afternoon.

The ship will sail down Channel on Saturday evening and will return along the coast on Sunday, arriving at Spithead on Sunday evening and disembarking passengers at Portsmouth.

The arrangement with the Orient Line is such that members wishing to secure accommodation for themselves and friends must take out their bookings *not later than Friday, May 10*.

In applying for accommodation, a special application form must be used in every case. All enquiries respecting berths must be made direct to the managers of the Orient Line, Anderson, Green & Co. Ltd., 5, Fenchurch Avenue, London, E.C.3; 14, Cockspur Street, London, S.W.1.; or 1, Australia House, Strand, London, W.C.2, and **not to the Royal Aero Club**.

The enquiries already received at the club indicate that this accommodation will be readily taken up and **members are therefore requested to make early application, and in any event before Friday, May 10th, 1929.**

Berths for Ships on the Course.—Applications for berths for ships on the course must be made direct to:—The King's Harbour Master, Schneider Cup Berthing Committee, Admiralty House, H.M. Dockyard, Portsmouth.

Municipal Conference.—Lord Thomson, Lieut.-Col. M. O'Gorman, and H. E. Perrin visited Portsmouth on Thursday, April 11, and attended a conference of representatives from the various towns situated on the Schneider course. A discussion took place as to the general arrangements to be made for the accommodation of the public.

Prior to the conference the representatives were entertained to luncheon by the Lord Mayor of Portsmouth.

GERMAN AIR SUBSIDIES

GERMANY has enjoyed an enviable progress in civil aviation through the benevolence of its Government and the patriotism of its people. Its advantageous geographical position in Europe for air communications, internally and externally, has been fully appraised. The result has been a wonderful network of air lines, radiating from all the important towns, probably unequalled by any other country. In all comparisons of the progress of civil aviation in all countries, Germany has always been raised to a pedestal for others to admire and emulate.

This wonderful edifice, however, seems to be severely shaken by the new Air Estimates in Germany. A proposed large reduction in subsidies for German aviation has been reported. This economy, and the effects it may have, shows that although Germany has progressed so far with her air lines, she has only enjoyed the boom with the aid of an extensive subsidy. Now that this support may partly crumble, we shall see how far the country is air-minded in a practical way.

Recently there has arisen much German criticism of the heavy subsidies awarded civil aviation by the Government, and of the manner in which the money has been utilised. The shorter internal air lines have not been paying at all, and the critics naturally declare that there is no need for such an extensive network of lines as exist. Many of these lines between cities are too close to each other, and have existed in their unhealthy condition purely through extreme local patriotism, which has been responsible for local aerodromes that were not needed. In other words, Germany has, in a sense, been too air-minded for its present economic condition.

Lufthansa and Zeppelin Plans Hit

Their Budget may mean that the ambitious programmes of

Lufthansa, the Imperial Airways of Germany, will have to be partly abandoned. This large combine had proposed a fusion of all German air routes within and outside her borders, and several new connections with existing external routes, and an even closer system of lines within the boundaries of the country. New aerodromes were to be constructed, and a new Zeppelin shed raised for the L.128. A protest has been made by Dr. Eckener, the Zeppelin commander and designer. He declared that the continuance of the Zeppelin works would be impossible under the Budget cuts, and that although he recognised the necessity for public economy, he could not understand why the airship industry should be the victim of greater economy than other branches of the aircraft industry.

Lufthansa expressed the opinion that lower estimates would mean the virtual destruction of the organisation, slowly and painstakingly built up, the waste of pioneer work of many years' duration, and hardship for the personnel which has been trained very carefully. Internal services would also be paralysed, they thought. According to their figures concerning the Budget, the original estimate for aviation amounted to £3,400,000, but before presentation this was reduced to £2,610,000. The reduction reported is about £1,400,000. Lufthansa gets about 40 per cent. of the aviation subsidy, and its share under the new estimates may be reduced by nearly one-half. Lufthansa has to maintain the international services with its subsidy, whilst the States and municipalities subsidise the local lines. A plan to cope with the possible effect of these reductions has been suggested in the form of an Air Loan, supported by the banks and industrial community. In spite of all, it is hoped that the international air lines will not really be affected, but a rationalisation of the air system will certainly be necessary.



Capt. the Rt. Hon. F. E.
Guest.

FURTHER DETAILS OF NATIONAL FLYING SERVICES, LTD.

Air Parks, Country Clubs, and Service
Stations



Lieut.-Col. I. A. E.
Edwards.

THE main features of this helpful scheme have been embodied in an interesting brochure issued by the company, giving details of its proposed activities. First, the company has on its board of directors Capt. the Rt. Hon. F. E. Guest, P.C., D.S.O., M.P. (chairman); Mr. J. G. Peel, J.P. (deputy-chairman); the Hon. Dame Mary Bailey; Col. the Master of Sempill, A.F.C., A.F.R.Ae.S., Sir Alan Cobham, K.B.E., A.F.C.; Mr. A. G. Hemsley; Capt. W. S. Stephenson, M.C., D.F.C., F.R.S.A.; Lieut.-Col. I. A. E. Edwards, C.M.G. (managing director); and Mr. G. E. F. Boyes (deputy managing director). The secretary and commercial manager is Mr. Noel I. Smith; and chief engineer, Maj. F. R. Williams. Information and publicity are in the charge of Mr. E. M. Rossiter.

As the initial stage of the programme, the company is putting into commission as quickly as possible an organisation comprising the following: a central air park and country club for the service of London (this will be at Hanworth, Middlesex); 22 national air parks and clubs at important centres in the provinces; 100 intermediate landing grounds; 100 light aeroplanes with reserve aircraft and engines; 50 flying instructors and pilots, 50 licensed ground engineers, and 50 assistants, with a reserve of instructors and engineers.

There will also be a fully equipped central repair depot and stores, a route information bureau, technical advisory bureau, and sales and insurance organisation and meteorological information service. For a parallel in motoring to this organisation, one must imagine such a body as the Automobile Association extending its activities to embrace co-operation with the local authorities in the planning and provision of roads; teaching people to drive through the medium of regional motoring clubs; acting as motor dealers, engineers, and garage owners; providing a motor-car hire service and taxi service, operating commercial road vehicles; serving as booking agents for road transport; and, finally, organising races and competitions for motorists. All such duties in the air, and others for which a need arises, are to be undertaken by National Flying Services, Ltd. The company's 123 flying grounds will be distributed at average intervals of some 15 minutes' flying time from one to another.

Air Taxi, Instruction and Pleasure Flying

While all the company's services, more particularly aircraft and pilots for air-taxi flying, will be open to the general public, the 23 main centres will operate primarily as flying schools and clubs, and as service stations for private owners.



An aerial view of the Hanworth Park (Middlesex) aerodrome and Club-House which will be the Central Air Park of National Flying Services, Ltd. The excellent flying approaches are a good feature of this site.

Another Remarkable Reliability Record on Prattis

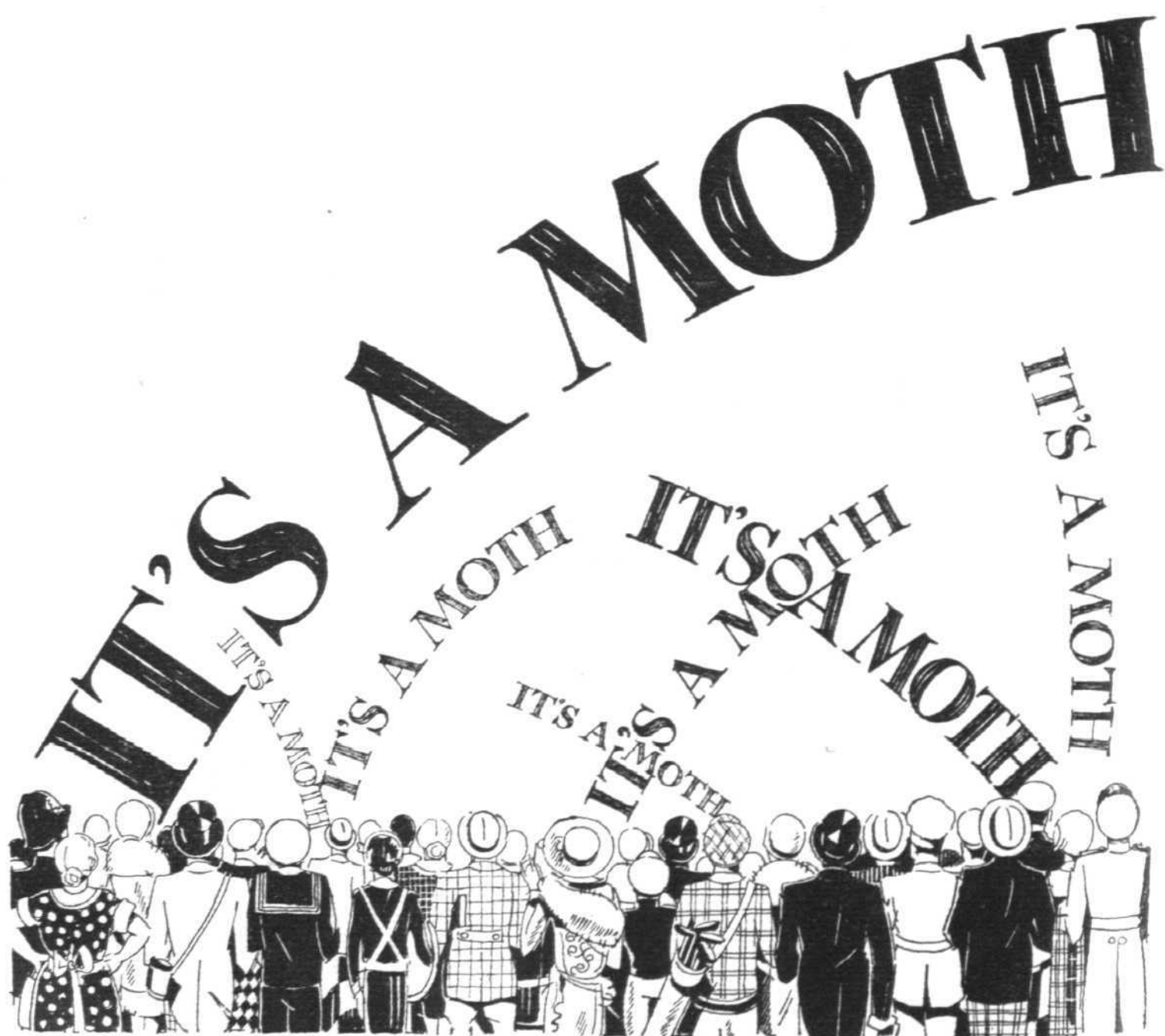
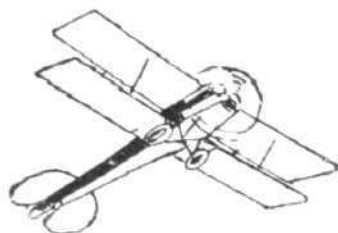
LT. COL. G. L. P. Henderson of the Henderson Flying School reports an excellent performance by a Cirrus Mark II engine which has just completed 260 hours *without top overhaul*. The fuel used throughout was Prattis. This is a splendid tribute to the purity and reliability of this famous motor spirit.

The engine was subjected to the most arduous school work. It was fitted to a machine that was used by all types of pilot, and has been flown from Malta and to and from the Riviera many times.

"There is no apparent pinking," says Col. Henderson, ". . . it is the most consistent and trouble-free performer I have ever flown with."

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Club-houses at these centres will be available for the use of registered club members and their guests. Members of one club will automatically become honorary members of all the other clubs, and be entitled to receive landing, handling and housing facilities free of charge at all the company's stations. The company's aircraft may be hired by fully trained members for business and pleasure journeys on "drive-yourself" terms. Club members will be divided into two classes: flying members and non-flying members. Besides the amenities of the club, non-flying members will have the privileged rates for flying as passengers.

For the London centre the company has secured Hanworth Park, an estate of 230 acres at Feltham, Middlesex. At the existing mansion, there will be established an up-to-date country club. In addition to the lawns and gardens surrounding the clubhouse, Hanworth Park provides ample space for two aerodromes—one for club use and the other for private, commercial and demonstration purposes.

This site is very accessible, both from the air and ground. It can be reached by air from north, west and south directions without passing over London; yet it is within 30 mins. of the West End of London both by road and rail. Members of the club will find there recreation and relaxation amid ideal surroundings, with the novelty and sporting interest

direction of an instructor. A strict code of flying discipline will be in force in the interests of safety. Club members will be classified according to experience and skill, and club machines will be issued to members strictly for use in accordance with such classification.

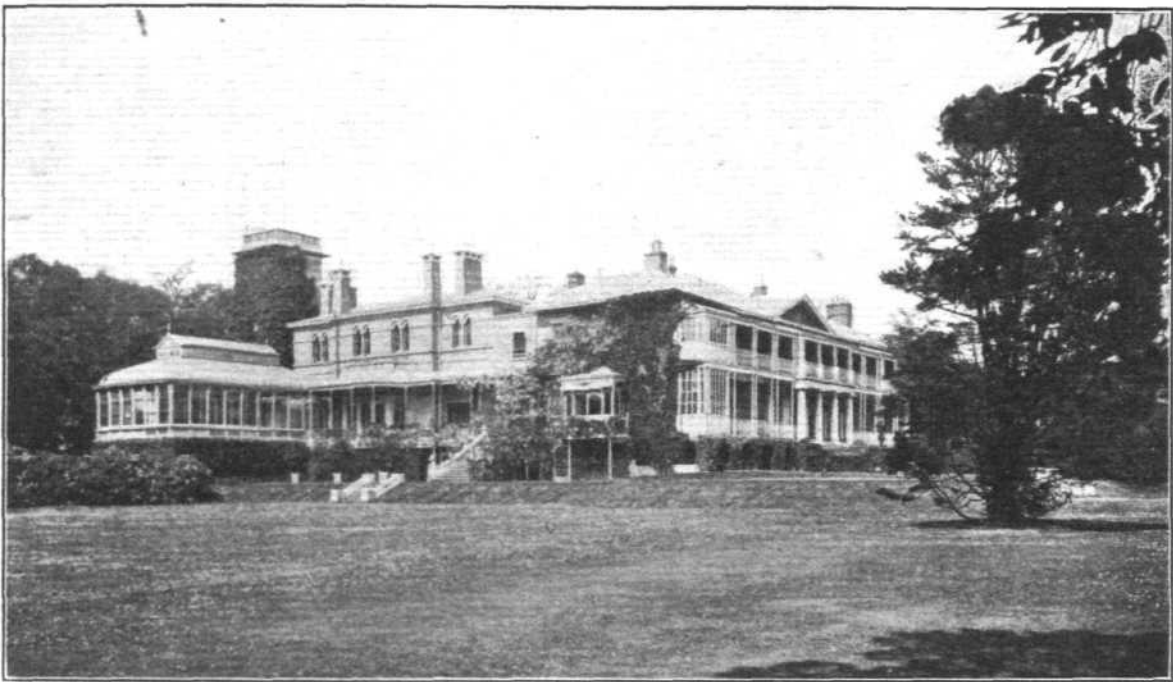
Members who own aircraft will have every facility, including lock-up garages, and maintenance and repair assistance.

Organisation in the Provinces

Each of the 22 national air parks in the provinces will be equipped on lines similar to the central air park and give equally efficient flying facilities. Every club will be available to members of all the 23 clubs organised by the company, since the rules of membership provide that a member of one club is an honorary member of the other 22 clubs.

At each air park there will be a comfortable club-house, hangars, workshops and lock-up garages for members who own machines. A normal complement of four light aeroplanes will be kept constantly in commission for training the members of the club, for hiring out to members, for joy-riding and taxi service and commercial flying generally, and the establishment will increase as the occasion demands.

A staff of two instructors, two ground engineers, and engineering and clerical assistants are to be stationed at each



National Flying Services' London Air Park and Club-House at Hanworth Park, Middlesex, which will serve London under their comprehensive flying scheme. It will have all the amenities of a country club.

of flying as a fresh attraction to the amenities of country club life.

They will have six hard and five grass tennis courts, and squash racquets courts. The club-house will include a ball-room, dining-room, a lounge and balcony lounge, bar, card-room, writing room, and a magnificent palm court; also twenty bedrooms and ample bath accommodation. Suites comprising a bedroom, sitting room and bathroom will be available if required. Dances and other entertainments will take place regularly throughout the year.

Flying Equipment

At the outset, twelve light aeroplanes will be stationed at Hanworth Park, and six instructors will be available for the use of members. Additions will be made as the demands warrant, and the work of tuition so organised that every flying member will have the opportunity of qualifying as a pilot within a reasonable period of time. Each member learning to fly will come under the personal supervision of an experienced instructor, and be encouraged to develop his or her personal aptitude for flying in the most natural way. The pilots will be specialists in instructional work. A reserve pool of aircraft will be available to replace damaged or unserviceable machines without delay, thus avoiding the vexatious interruptions of flying which have been the bane of club flying in the past.

Experience in club flying has shown that the average pupil is usually able to qualify for the "A" licence after 15 to 20 hours' training. The minimum under the club rules is 10 hrs. dual instruction and 5 hrs. solo training under the

provincial air park by the company. A club-house is to be furnished by the company, and catering carried out. Social affairs are to be left in the hands of a club committee.

The maintaining of a central reserve of pilots, engineers and aircraft at Hanworth Park will ensure that members are spared irksome delays. It is the special concern of the company to keep every air park fully employed in flying and a machine available for every club member.

Flying displays, open to the public, will be held periodically in addition to such special entertainments as may be arranged by the club committee. At the 100 service stations there will be fuel installations, wind indicators, ground markings and telephone, supplemented by the priority claim on the service of a local motor engineer. Lock-up aircraft garages will be erected as required, and it is proposed to add equipment as aviation expands and make them the basis of local flying activities.

Air Taxi Services

National Flying Services, Ltd., have been appointed agents to all the European air lines, and special attention is to be paid to connections by air-taxi with the regular Continental air lines terminating at Croydon aerodrome, connections with incoming and outgoing liners at the great seaports, and connections between provincial towns which lack fast and convenient services from one to another by rail. The basic tariff of charges for the hire of an air-taxi in force at all the company's stations will be 1s. per mile for single passenger machines with pilot. Special rates for regular users and long distance flights will be quoted on application. Short flights for non-members will cost 5s. per passenger.

Entrance Fees and Subscriptions

Members will normally pay an entrance fee and annual subscription, but they may be elected as life members on payment of the appropriate subscription rate. An annual flying member will pay five guineas entrance fee and five guineas subscription fee for the London Club, or three guineas in both cases for a provincial club. The equivalent rates for non-flying members will be three guineas in London and one guinea elsewhere. Dual instruction will cost £2 per hour and solo instruction £1 15s. per hour. Other flying rates will be found in the company's booklet (P.1.) Communications should be addressed to The Secretary, National Flying Services, Grand Buildings, Trafalgar Square, London, S.W.1.

It is appropriate here to mention that the Air Ministry has inspected and reported upon 31 aerodrome sites throughout Great Britain, which have been selected for their approval by local municipal authorities as prospective municipal aero-

dromes. The sites are as follows:—Morecambe, Bristol, Scarborough, Leeds, Worthing, Littlehampton, Bognor, Derby, Leicester, Blackpool, Manchester, Skegness, Portsmouth, Basingstoke, Rotherham, Carlisle, Bradford, Nottingham, Plymouth, Ipswich, Burton, Sheffield, Hull, York, Liverpool, Newton Abbot, Hastings, Birmingham, West Bromwich, Kidderminster, and Wolverhampton.

Among the towns which have sites in view are Northampton, Wellingborough, Southend, Glasgow, Poole, Gloucester, Inverness, Chorley, Doncaster, Walsall, Sunderland, Worcester, Hereford, Greenock, Huddersfield, Bournemouth, and Stoke.

The following towns have been in touch with the Air Ministry and have the selection of a site under consideration: Brighton, Chester, Shrewsbury, Maidstone, Edinburgh, Peterborough, Barnsley, Darlington, Harrogate, Grimsby, South Shields, Gravesend, Blyth, Winsford, and Cardiff.

At an inaugural lunch at the Savoy on Wednesday, Captain the Rt. Hon. F. E. Guest, who was in the chair, made a few additional points. After regretting the absence of Lady Bailey and Sir Sefton Brancker, he said that the arrival, just after the commencement of lunch, of the Master of Sempill and the Dowager Lady Swaythling was, by Blackburn "Bluebird" light seaplane, they alighting on the Thames in front of the Savoy and that they would shortly take off again and re-settle opposite the House of Commons and "sit" there. He hoped to see many others there before long.

Capt. Guest continuing, said it had been asked, would the scheme pay and what was their attitude towards the existing Light 'Plane Clubs?

Their motto was: There was room for all—no rivalry with others and their doors were open to all who desired to enter. He felt this was the right moment to launch this scheme and to emulate the successful activities that they saw going forward in the United States.

Theirs was the reverse of the case of the laws of Supply and Demand. They would endeavour to secure the demand for aircraft in the form of producing pilots, and the supply of aircraft would follow. If they supplied only pilots sufficient to earn their subsidy from the Government they would have done something for the nation. Already aviation companies' shares were ranking eighth in the industrial list, and that was a good omen. Another point was that they would give a splendid opening to the short service officer, a very important issue and moreover a national moral obligation. Time was money, and merely to emphasise the economy of flying he mentioned that he was able personally to collect three directors' fees in one day by this means. A matter of vast importance was the internal Imperial system of transport, and in this respect they had India this year, and within a year they could look forward to the same to South Africa. Although the National Flying Services Company was a commercial enterprise it was really a national conception. The British Government, it would be admitted, were superlatively cautious, and after the company's estimate figures were produced to them, after very careful investigation by the authorities they were accepted, and they could be therefore regarded as reasonably right. Their scheme was democratic and their aim was that all who joined would be part of a National social scheme. It was also a valuable asset to the military side of this country, and he hoped therefore he would receive the help in this great enterprise which the country deserved.

Mr. F. G. L. Bertram was called upon to speak on behalf of the Air Ministry, in the enforced absence in Greece of Sir Sefton Brancker. Mr. Bertram read a letter from the Secretary for Air regretting his inability to be present in person, but he wished to assure the chairman of his good wishes for the company. He considered it should play a great part in the development of civil aviation, and he wished the company every success, and that it would obtain the necessary support in the country. Mr. Bertram also added his personal

wishes for its success, and coupled with that the name of Air Vice-Marshal Brancker, who, he was sure, would have further emphasised this had he been able to be present.

Lieut.-Col. Moore-Brabazon, in supporting the chairman, said he was not so keenly interested in the industrial side as he was interested in the private flyer. The war unfortunately introduced a type of machine that was regarded by the public more like they regarded submarines. This had to be changed, and we had now come to practically a dead end. This new organisation appealed to him to get over that difficulty. Many, he said, would always fly for the sake of flying, but thousands would fly if they could see that it was useful to them, and this the company would be able to demonstrate. By propaganda they could get the people into the air, and thus be able to compete with other countries. He appealed to all to see that the new company when launched should go off with a "zoom."

The Rt. Hon. Lord Thomson, who followed, said that the National Flying Services exercised the minds of the private flying clubs when first mooted, the subsidy being the alarming point. Under the statement made by the chairman in regard to "room for all and the open door," the private flying clubs, he thought, could hold up their heads, but in his view payment should not be restricted as a monopoly to one organisation. It should be a case of payment by results, and this he hoped would be arranged. He looked forward to flying becoming so universal that subsidies presently would be abolished. He thought the National Flying Services would be filling a very important function in its national work.

Miss Winifred Spooner, who was asked by the chairman, who again regretted the absence of Lady Bailey, to speak on behalf of the great lady flyers of the country, was modest in her response, saying that what the country needed more than anything was the work which was contemplated so splendidly by the National Flying Services, and both she and her friends, flying and otherwise, all hoped that the company would be generously supported.

Amongst the distinguished guests present were:—

Sir Howard Frank, Miss O'Brien, Capt. W. S. Stephenson, M.C., D.F.C., F.R.S.A., Capt. Cazalet, M.P., Maj. Potter, Guy Hemsley, Esq., His Worship the Mayor of Portsmouth, Capt. W. Brass, M.P., F. G. L. Bertram, Esq., C.B.E., Sir Basil Blackett, Mme. de Landa, Sir George Hastings, Capt. Cunningham Reid, M.P., J. G. Peel, Esq., J.P., Maj. Norman Holden, Miss Spooner, W. P. Pitt, Esq., Sir Harry Brittain, M.P., The Rt. Hon. Lord Thomson, P.C., C.B.E., D.S.O., The Viscountess Elibank, Lieut.-Col. J. T. C. Moore-Brabazon, M.C., M.P., Sir E. Hilton Young, M.P., The Dowager Lady Swaythling, Col. The Master of Sempill, the Rt. Hon. Lord Mayor of Nottingham, Lieut.-Col. I. A. E. Edwards, C.M.G., Sir Arthur Wheeler, Maj. A. McLaren, A. G. Cousins, M.B.E., J.P., Lieut.-Com. the Hon. J. M. Kenworthy, M.P., Sir Alan Cobham, Col. Woodcock, M.P., Brig.-Gen. P. R. C. Groves, C.B., C.M.G., D.S.O., Lieut.-Col. Cecil L'estrangé Malone, M.P., Capt. P. D. Acland, Col. Morpett, etc.

New Flying Club Formed

A LEICESTER and Leicestershire Aero Club has been formed. The Chairman of the Committee is Mr. R. C. Winn, an ex-R.A.F. pilot, and the Hon. Secretary is Mr. H. Purt, who is Secretary of the local Chamber of Commerce. Negotiations for a landing field and the purchase of the first machine (three of which have been promised) are now going

through. Communications should be addressed to Mr. H. Purt, 3, Granby Street, Leicester.

Aerodrome for Wellingborough

AN aerodrome, public playing fields, and a considerable expansion of the industrial area of the town are provided for in a town-planning scheme put forward by the urban district council of Wellingborough.

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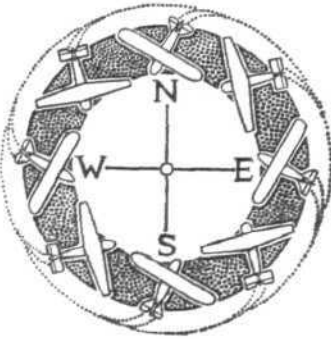
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The Armstrong Siddeley Jaguar engines used by Imperial Airways Limited on the Argosy airliners flying between London and Paris have established a period of 400 hours between overhauls, the usual top overhauls having been discontinued altogether.

The new and improved Argosies for the first stage of the new London-India Service are being fitted with Geared Jaguars.

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AIRISMS FROM THE



FOUR WINDS

The Southern Cross Found

THE Fokker monoplane (three Wright "Whirlwinds") known as the "Southern Cross," which left Sydney on March 30 the first stage of a flight to England, has been found after on being missing since March 31. On April 12 the D.H.61 ("Jupiter") "Canberra," piloted by Capt. Holden, sighted the missing monoplane near Port George Mission on the north-west coast of Australia, south-west of Wyndham, the destination which the airmen had hoped to reach non-stop from Sydney. The crew, Sqdr.-Ldr. Kingsford-Smith, Flight-Lieut. C. Ulm, Mr. Litchfield and Mr. McWilliams, were alive, though weak from long starvation. Food was dropped as the "Canberra" circled. The monoplane was undamaged, however, and can be flown off when petrol is taken to the spot, which is a mud-flat. After the "Canberra" had reported position of the airmen another machine, piloted by Mr. Heath, of Western Australian Airways, landed beside them with more food. One of the many pilots flying to take part in the search was Lieut. K. Anderson. He started from Sydney and reached Alice Springs. Leaving the latter place on April 10, he has not been heard of since. Air Force machines are now searching for him.

Light-Plane Flight to South Africa Completed

SQDN.-LDR. L. H. SLATTER, who led the British Schneider Trophy team in 1927, reached Durban, South Africa, in the Blackburn "Bluebird" (Gipsy engine) on April 15. He started from Croydon last month and flew solo. He is a native of Durban, and the object of his successful flight, which progressed so smoothly, was to visit his relatives there.

South African Record with "Jupiter" Engine

SIR PIERRE VAN RYNEVELD, Director of the Union of South Africa Air Services, accompanied by Gen. A. J. Brink, Chief of Staff, has recently broken the record for a flight between Pretoria and Cape Town by covering the distance in 6 hrs. 55 mins. The previous best record was 7 hrs. 25 mins. The aircraft used was a Mpala machine fitted with a Bristol "Jupiter" engine.

S. African Air Mails

THE Union Government has agreed to the application of Union Airways, Ltd., for the inauguration of an air mail service. Aeroplanes will fly between Capetown and Port Elizabeth (Cape Province), whence the service will be in two sections, one for East London and Durban, Natal, and the other for Bloemfontein and Johannesburg. Delivery of outgoing and incoming overseas mails will be greatly expedited, and after the first year the company guarantees a passenger service. The contract will be for three years, during which the Government will pay an annual subsidy of £8,000. The whole of the necessary capital has been guaranteed and the service will eventually link up with that of Imperial Airways.

Argentine-Spain Flight Planned

THE Argentine airman, Lieut. Mejia, who recently purchased the Fokker seaplane used by Miss Amelia Earhart, on her flight across the Atlantic last year, announces a plan to fly from Buenos Aires to Spain. He may leave on May 20.

A Queen's Flight

THE Queen of Rumania and Princess Ileana arrived at Cadiz on April 12 and propose to travel by air to Grenada and Seville. Later she will go to Ceuta on a Spanish ship.

Swedish Flight to Newfoundland Planned

THE Swedish pilot, Mr. Ahrenberg, has purchased a Junkers "Bremen"-type seaplane (Junkers W.33 seaplane with Junkers L 5 engine), which will be delivered this month. Mr. Ahrenberg proposes to start during May and to fly in stages from Sweden via Iceland and Greenland, to Newfoundland. Mr. Ahrenberg was the pilot who achieved a remarkable propaganda flight last year, touring right round Sweden on a Junkers F.13. During this tour he made 2,338 landings and carried over 10,000 passengers; the tour was accomplished without change of crew or machine.

Spanish Tour

THE aeroplane "Jesus del Gran Poder," in which the Spanish airmen, Capt. Jimenez and Capt. Iglesias, recently made a non-stop flight from Spain to Brazil, arrived at Santiago de Chile on April 12 from Buenos Aires. As the Spanish aeroplane was leaving the Argentine capital an Argentine military machine which was acting as an escort crashed and the pilot was killed.

Cirrus-Spartan Flight to New Zealand Arranged

THE Simmonds Cirrus-Spartan ZK-AAP is to be christened by Lady Bailey at the A.D.C. Works, Air Port of London, Croydon, on Friday next, April 19, at 3 p.m. On this machine the owner, Mr. Frank Mase, starts his flight to New Zealand during the week following the christening. The distance is approximately 13,500 miles and will be one of the longest solo flights that has ever been undertaken. The machine itself has a range of over 2,000 miles without refuelling being necessary.

New French Aircraft Carrier

THE memory of a young French pilot was commemorated recently by the launching of the new French aircraft carrier *Commandant Paul Teste* at Bordeaux. Commandant Teste was killed in an air accident at Villacoublay Aerodrome in June, 1925, while preparing for a flight to India.

Aircraft Orders from Greece

IT is reported that an order for six Fokker Rolls-Royce torpedo-planes has been received in London from the Greek Naval Air Service.

Death of Capt. Mackenzie-Grieve

CAPTAIN FREDERICK JOHN MACKENZIE-GRIEVE'S, R.N. (retired), death at Firhill, Droxford, Hants, is announced. He was the father of Commander Kenneth Mackenzie-Grieve, who was Hawker's navigator in the historic attempt to fly the Atlantic in May, 1919.

America's Bid for China Market

THE Curtiss-Robertson Aeroplane Manufacturing Co. proposes to send 40 aircraft and a number of trained pilots to China to commence commercial aviation, which will include an air mail service sponsored by the Chinese Government.

Berlin-London Night Service

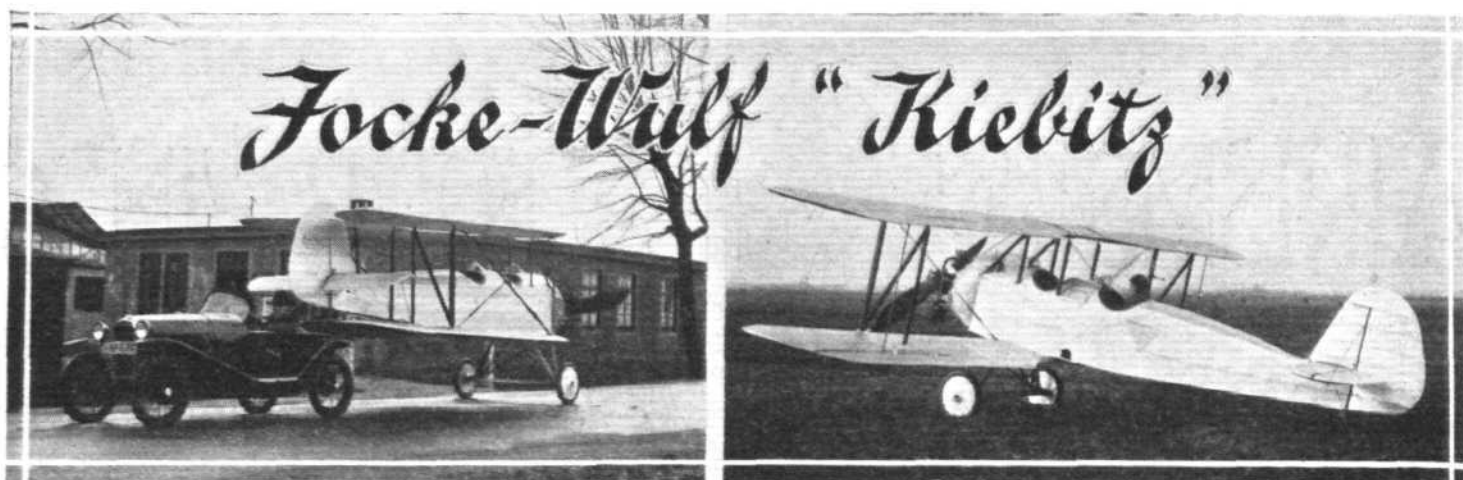
ON April 15 the Lufthansa was due to begin a night air mail and freight service from Berlin to London. Aeroplanes leave Berlin every weekday until further notice at 3.45 a.m., and, flying by way of Hanover and Cologne, reach London at midday.

Cheaper Fords

MR. EDSSEL B. FORD, president of the Ford Motor Co., has announced price reductions ranging from £1,400 to £2,000 in Ford tri-motored aeroplanes. Model 4, carrying 12 passengers and crew of two, is reduced by £1,400 to £8,400; Model 5 (14 passengers) by £2,000 to £10,200; and Model 6 (14 passengers) by £1,600 to £10,000. He announced that Fords are now producing three 'planes weekly, and expected soon to increase to one 'plane daily.

Baghdad-Teheran Air Mail

AN aeroplane of the Junkers Luftverkehr, a German company which has been operating a flying service in Persia during the last two years, left Baghdad on April 13 with the first direct Baghdad-to-Teheran air mail, thus marking a further notable advance in Middle East communications. Hitherto, owing to political difficulties, the company has been unable to fly over the Iraq frontier, and passengers flying to Teheran were compelled to travel the first 120 miles from Baghdad by train or motor-car. Imperial Airways will represent the German company in Baghdad, and the new service connects twice weekly with the Indian air liners. The German flying services in Persia now comprise regular flights between Teheran and Baku, Teheran and Meshhed, Teheran and Bushire, and Teheran and Baghdad.



A GERMAN LIGHT 'PLANE SHOWING SIGNS OF BRITISH INFLUENCE: In the design of the "Kiebitz" many points of similarity to current British practice are found. Note for instance the folding wing biplane arrangement. The machine may be towed behind a car.

ALTHOUGH the Light 'Plane movement in Germany has followed somewhat different lines from ours, mainly due to the fact that, whereas we very quickly departed from our earlier conception of the light 'plane, Germany has, until comparatively recently, adhered to the original ideal: a two-seater aircraft with very low engine power, there are clear indications that the outstanding success achieved by the British version of the light 'plane all over the world is causing German opinion to change, and more than one German constructor has turned his attention to the type of machine to which we in this country have become accustomed.

One of the latest German firms to produce a light 'plane after the British pattern is the Focke-Wulf Flugzeugbau, of Bremen. The new machine, known as the type S.24 "Kiebitz," bears unmistakable evidence of British influence in its whole general conception, although the detail work remains, naturally enough, typically German. The machine was designed to have a tare weight of less than 400 kg. so as to bring it into the heaviest of the light 'plane classes, so that it affords a very interesting comparison with the general run of British light 'planes. That Germany is determined to enter the world market for this general class of machine is evident from a statement made by the Focke-Wulf firm to the effect that, before the prototype machine had completed its tests before the D.V.L., the Bremer Verein für Luftfahrt had ordered one, while 20 more were ordered from abroad, one of the conditions being that nine of these machines were to be delivered within a period of two months, between December 15, 1928, and February 15, 1929. In spite of delays of various sorts, caused by the intense cold weather during that period, the machines, it is claimed, were delivered on time.

General Design

The "Kiebitz" (Peewit) is a normal single-bay braced biplane as regards its general arrangement, and what is somewhat unusual for a German light 'plane, its wings are designed to fold. An unusual feature of the design is that the wing bracing is in the front bay only, where the lift wires are in duplicate; the landing wires are single. This arrangement has been made possible by the adoption of a bi-convex wing section, very nearly symmetrical, the centre of pressure of which is all but stationary. Thus the front spar is a very substantial member placed on the centre of pressure, while the rear spar is quite light, and serves mainly to provide the drag bracing via plywood covering on the lower surface. "N" struts between the wings provide the "incidence bracing."

It is likely that this type of wing bracing is quite satisfactory as far as concerns flying loads, &c. But obviously the designers came up against difficulties with the wing folding. In the original photographs can be seen quite clearly (although less so in the reproductions) not only the "jury strut" used in the front bay when the wings are folded, but also what might be termed a "jury wire," i.e., a wire running from the rear spar, top centre section joint, to the lower front spar joint at the foot of the "jury strut." With no bracing in the plane of the rear spar, this wire evidently was required to prevent the wings from sagging and straining the hinges when the wings were folded.

What rather indicates that this part of the wing-folding arrangement is not as neat as it might be is a statement to the effect that "during the East Prussia Competition the crew

(of 2) took only 9 mins. to wheel the machine out of the hangar, through a door 2.5 m. (8 ft. 3 in.) wide, spread the wings and start the engine." Assuming that the engine started at once, this would seem to be quite a long time for spreading the wings, and the majority of British light 'planes could be put through the same operation in something like half the time.

The arrangement of fuselage, seating accommodation, engine and undercarriage is exactly as in British practice.

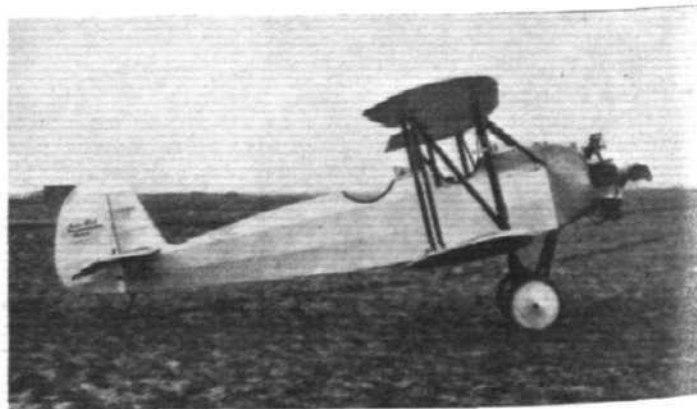
Fuselage Construction

The fuselage of the Focke-Wulf "Kiebitz" is of welded steel tube construction, the front portion being a rigid structure with diagonal struts welded in, while from the pilot's cockpit back to the tail the bracing is in the form of wires. As in all Focke-Wulf machines, the welded joints are reinforced either by sleeves or by flat plates. The covering is fabric with the exception of the extreme forward part, in the neighbourhood of the engine, where aluminium is employed.

The two cockpits are arranged in tandem, and each has its set of controls, its instrument board and its engine controls. There is a small windscreen in front of each cockpit. The pilot's cockpit is normally the rear one, the forward cockpit being placed approximately over the c.g. so that the machine may be flown solo without any appreciable change in trim.

Power Plant

The engine normally fitted is a Siemens Sh. 13 of 60/70 h.p. but it is understood that any engine, within reason, of approximately 50 h.p. and weighing not more than about 130 kg. (286 lb.) may be fitted to suit customers' requirements. The engine is mounted on a fireproof bulkhead, the engine controls being passed through special fire traps. The petrol tank, of brass sheet and with internal baffles, is placed in the deck fairing, behind the fireproof bulkhead. It has a capacity of 50 kg. (110 lb., or approximately 15½ gallons). In spite of the location of the petrol tank in the fuselage, direct gravity feed is provided, so that the petrol system is as simple as on British light 'planes, but the proximity of the tank to the



The Focke-Wulf "Kiebitz" is a two-seater fitted with Siemens Sh 13 radial engine.



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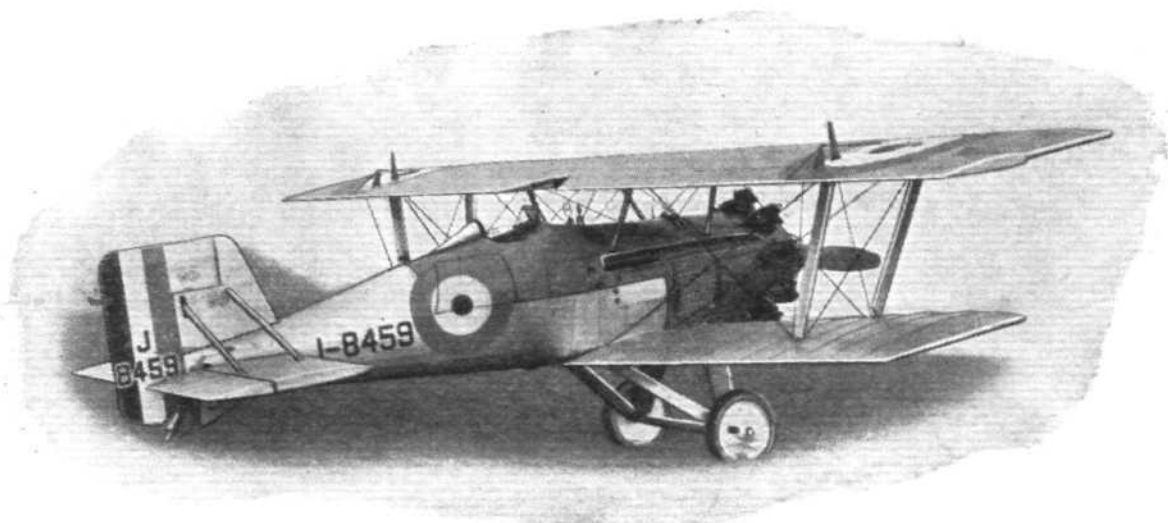
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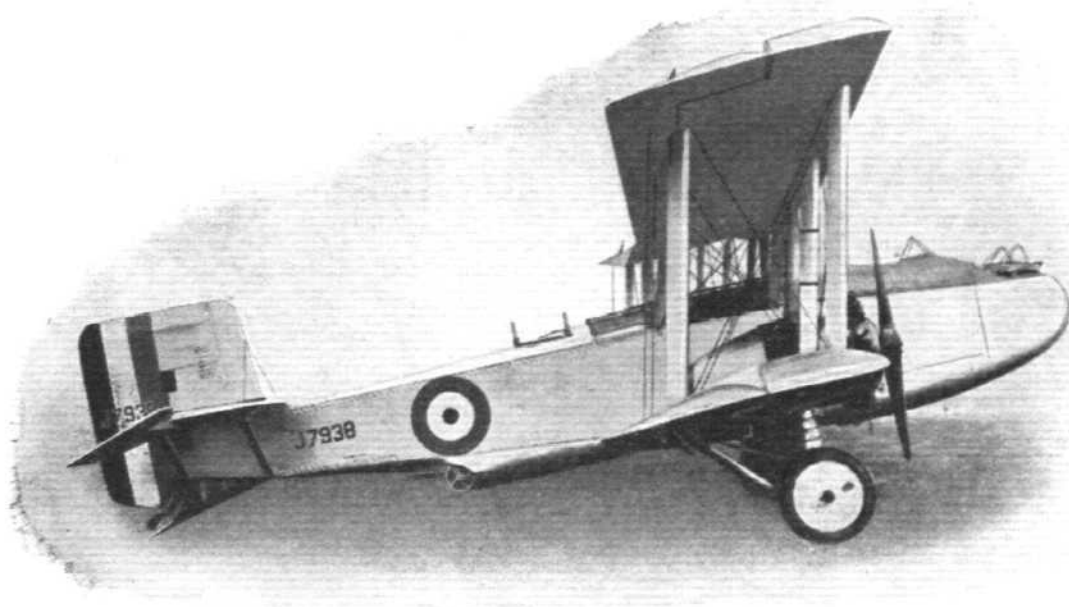
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engine might be criticised in this country, in spite of the presence of a fireproof bulkhead.

Undercarriage

An undercarriage of very simple type is fitted, consisting of two vees of steel tubing, with a cross-axle carrying a pair of wheels. As far as can be seen in the photographs, the shock-absorbing medium is plain rubber cord, which is now



THE FOCKE-WULF "KIEBITZ" has folding wings, and makes use of "Jury Wires" as well as of Jury Struts.

hardly ever seen on a modern British light 'plane. The track of the undercarriage is fairly wide, (1.5 m. = 4 ft. 11 in.), and the whole undercarriage can be taken off by undoing the four bolts at the top of the vees, and the diagonal bracing cables.

The Wings

As already mentioned, the wings are arranged in the form of a single-bay biplane, with lift and anti-lift bracing in the plane of the front struts only. There is no internal drag bracing, the function of this being performed by a plywood planking on the under surface extending from the front spar to the rear spar.

Ailerons are fitted to both top and bottom planes. The hinges are set back from the spar on short brackets, and the interconnecting struts run, not as is more usually done

in this country from points on top and bottom ailerons behind the hinge, but from cranks extending forward into slots cut in the main wings. The ailerons, like all the other control surfaces, are ply-wood-planked box constructions.

The Tail

The vertical fin is of welded steel tube construction, and is built integral with the fuselage. The tail plane is of all-wood construction with plywood planking, and owing to the small travel of the centre of pressure of the main wings, the tail plane has been kept quite small, smaller, in fact, than the elevators, which are also plywood boxes. The rudder has a small horn balance projecting over the top of the fixed fin.

Specification and Performance

The Focke-Wulf "Kiebitz" has an overall length of 6.25 m. (20 ft. 6 in.); the wing span (of both planes) is 8.9 m. (29 ft. 2 in.), and the overall height 2.25 m. (7 ft. 4 in.); the wing area is 19.5 sq. m. (210 sq. ft.).

The tare weight of the "Kiebitz" is (with Siemens Sh 13 engine) 365 kg. (800 lb.), and the disposable load 220 kg. (485 lb.), giving a total loaded weight of 585 kg. (1,285 lb.). This gross weight gives a wing loading of 30 kg./sq.m. (6.12 lb./sq. ft.) and a power loading (based on 65 h.p.) of 9 kg. (19.8 lb.) per h.p. The maximum speed is 150 km./h. (93 m.p.h.) and the landing speed 70 km. (43.5 miles) per hour. The climb to 1,000 m. (3,300 ft.) takes 8 mins., and the ceiling is 3,500 m. (11,500 ft.).

Finally it might be stated that the "Kiebitz" comes under group 5 of the *Deutsche Versuchsanstalt für Luftfahrt*, which is roughly equivalent to the "aerobatics" certificate in this country. Thus the machine may be used for stunting at the gross weight stated, i.e., 1,285 lb. The machine is reported to be very easy to fly and to have good controllability. It is claimed that it does not readily go into a spin, at least not accidentally, but that it can be spun quite well if the pilot sets out to do so deliberately; it then comes out of the spin quite quickly and easily. In view of the fact that a certain British machine with, as far as one can see, a very similar wing section, and curiously enough with almost identical wing bracing (not that this probably has anything to do with the matter) was found to spin very suddenly and violently when deliberately stalled, the results claimed for the "Kiebitz" are interesting.



American Naval Air Programme

THE *Daily Telegraph's* Naval Correspondent gives the following report on the American Naval Air Estimates for the coming year:—"A far-sighted policy is being followed in regard to air power. Compared with the American figures, our own fleet air arm dwindles almost into insignificance. Already the United States enjoys at least a four-fold superiority on this side. The new American aircraft carrier displacing 13,800 tons, is to cost £3,800,000. With this vessel and the *Lexington* and *Saratoga*, the United States will gain a definite lead in aircraft-carrying capacity at sea, as the three ships will be able to accommodate many more aeroplanes than the total that can be housed in all the British carriers. Apart from machines borne in the aircraft carriers, at least two aeroplanes are now carried by every American battleship and cruiser in commission, while a special small type of scouting 'plane has been evolved for the equipment of destroyers and submarines. It is well known that only a few of our battleships and cruisers carry aeroplanes, although an outstanding lesson of the recent manoeuvres in the Mediterranean was the absolute necessity of adequate and efficient air reconnaissance. On March 1, this year, the American Navy had 867 effective aeroplanes, and the purchase of 273 more is now authorised. At the end of the next financial year there will be 910 aeroplanes in service and 208 on order. This year the British Fleet Air Arm is to be enlarged by two flights—nominally twelve machines. In addition, two 6,500,000 cub. ft. airships were ordered for the American Navy last October.

A similar state of affairs exists in connection with the

respective strengths in man-power. While the British naval personnel shows a decrease of 3,000, the American establishment is to be increased by nearly 2,000. Including Marines, who are being more and more employed on shipboard, the American personnel is larger by many thousands than our own. In other words, American sea power, as represented by ships and men, is increasing at practically the same rate that British sea power is declining.

Canadian Items

ARRANGEMENTS are reported completed whereby the Canadian Colonial Airways, Ltd., and National Air Transport, Ltd., have acquired rights for the use of the new airport, and facilities, on North Dufferin St., Winnipeg, in connection with the proposed air service between Toronto and Buffalo. The journey between the two cities will take 45 mins.

The first commercial air service into Peace River country was inaugurated on March 7, when a monoplane piloted by "Wop" May—who flew anti-toxin to Fort Vermilion for diphtheria sufferers awhile back—left Edmonton for Grande Prairie, a distance of about 350 miles. The service is a tri-weekly one, the round trip being made in one day.

It is interesting to note that the mail carried in the first 'plane to Aklavik, in the North-West Territories, on the air mail service inaugurated on March 25, reached its destination ten days ahead of the regular mail which left Edmonton per ordinary methods on January 22!

High-Speed Flight at Calshot

THE R.A.F. High-speed Flight was officially transferred from Felixstowe to Calshot on April 15. It is in training for the Schneider Trophy race in September.

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HOLIDAY TOUR TO MOROCCO BY "GIPSY MOTH"

Captain G. De Havilland's 4,600-Mile Flight.

CAPT. G. DE HAVILLAND, chief designer to the de Havilland Aircraft Co., recently decided to take a short holiday, and, as he invariably uses an aeroplane to cover any distance over 20 miles, the only question to be decided was where to go in the four weeks available. Eventually a tour through Europe to Morocco was decided upon. Accordingly, he and Mrs. de Havilland left Stag Lane Aerodrome, Edgware, on March 3 in his Coupé Gipsy Moth, G-AAAA, which he has been using since last August. It is a standard machine except for an extra 10-gall. petrol tank to increase the range to 550-600 miles. Baggage for a month completely occupied the luggage space, but, even so, the length of run on taking-off and the rate of climb were always normal, even in the hottest weather.

At the outset of the trip they were held up by thick mist around Paris, but succeeded in making Montélimar two days after starting. There, the bad weather was left behind, and the flight to Perpignan was marked by increasing visibility and rising temperature. A steady speed of 85 to 90 m.p.h. was maintained at a height of about 1,200 ft. until the mountains bordering the Rhone were reached, when the height had to be increased accordingly. Near Perpignan the snow-capped peaks of the Pyrénées came into view, clear-cut in a sky of vivid blue. Early next day a start was made for Barcelona in perfect weather. Of that part of the trip Capt. de Havilland remarked: "At first, although this route lies through mountainous country, landing possibilities are not too bad, and the degree of visibility must be experienced to be believed, but later the country becomes less and less suitable for a forced landing, there being little to choose between vineyards, olive groves, and rocks. For some stretches of 20 miles or so the mountains go sheer down into the sea, so that, relieved of the duty of picking out suitable landing grounds, one can admire the grand scenery to the full!"

Local Tours from Rabat

After staying two days at Alicante and exploring the surrounding country, they made for Rabat, in Morocco, via Malaga and Tangier. Rabat is a pleasant little town on the coast, chiefly composed of Government buildings and the houses of the French officials, and, possessing several excellent hotels, makes a pleasant place at which to stay. They established their headquarters there for a week, housing the "Moth" at the French Military aerodrome, where the mechanics took great pride in attending the "avionette." It was there that additional oil was first added to the sump of the "Gipsy" engine since leaving Stag Lane. The sump holds 2 galls. and was still found to be one-quarter full.

From Rabat flying excursions were made to places around Fez, on the foothills of the Atlas Mountains, [was reached

in an hour and a half, and Casablanca, 60 miles down the coast, occupied but 45 minutes from Rabat.

The French Air post which runs from there to Toulouse and back, every day, is a very fine example of enterprise and organisation. A machine starts from both termini every morning and flies 1,150 miles in the day, for the most part over very bad flying country. The officials of the line at every aerodrome were always extremely kind and helpful, and the charges for housing, etc., were very reasonable.

The air travellers, after a look round from the air, decided to find a spot on the coast far away from the towns, where the untouched sea-shore could be enjoyed. A landing was made within a hundred yards of the water, and the spot was so ideal that lunch was brought next day and many hours spent in the perfect air and sunshine, bathing and exploring the reefs and creeks. The sight of the "Moth" soon attracted some local Arabs, two of whom proudly took up posts as guards for the day. Capt. de Havilland reports that there are numerous places on this coast, as well as inland, where safe landings can be made after an examination of the ground by flying low—the whole country, in fact, up to the foothills of the Atlas Mountains, is pretty nearly ideal for flying, being flat with few obstructions.

Across the Straits

Rabat was left with regret on March 18, and a landing made at Tangier in a 40-mile-an-hour wind, which continued for three days and prevented the mail boat from reaching the town. After a start and return owing to rain and mist in the hills, the weather eventually cleared. The Straits were crossed in perfect conditions, and the travellers landed on the neutral ground at Gibraltar in order to see a friend in the town. Capt. de Havilland considers that this neutral ground would make a splendid aerodrome with apparently very little labour. Leaving Gibraltar at 3 p.m., a fine flight was made to Seville over beautiful country and with the advantage of amazing visibility, compared with conditions obtaining at home—the Sierra Nevada, 200 miles distant, being clearly seen. That route homewards was partly chosen to see more of Spain, and partly because the East coast route holds few attractions for flying over, once it has been seen. In Seville they found an old friend in Mr. Hatchett, who has been flying the same D.H.9 on the Seville-Larache route for the past eight years with astonishing reliability. Mr. and Mrs. Hatchett were more than helpful in pointing out the sights of this beautiful city.

Leaving Seville, with the temperature very high, Burgos was made in the afternoon, where the thermometer was near freezing point. It was difficult to arouse any sign of life on the aerodrome at Madrid, where



Capt. G. de Havilland and Mrs. de Havilland (in the cockpit) who have recently completed a holiday air tour to Morocco in their Gipsy-Moth



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they stopped to fill up, due to its being midday, but, once clear of Madrid, high mountains were encountered, through which a narrow pass was negotiated, with peaks on either side and above, then over the plateau 2,000 ft. high, to Burgos, with the Pyrenees in clear view.

Through the Mountains

"It was difficult to get any information," remarked Capt. de Havilland, "as to the best way through the mountains, and we started off next morning with inferior maps and against a 30-mile-an-hour wind. There is much mountainous country to cover before reaching the Pyrenees proper, but with possible landing places nearly always below. You have to go through a succession of narrow passes with ever-changing and wonderful scenery. Having passed over Vittoria and got thoroughly into the mountains, we realised that the gorge in which we were following a road and railway eventually led back to the south-east, and our way to Biarritz was north. So we left all tracks and struck out over distinctly unfriendly peaks, knowing that the sea was only 30 miles away. The half-hour of mountains which followed was not in the least pleasant, and relief was general when the ground was seen to fall away to a rim of sea-shore! Biarritz for lunch and then on to Bordeaux in the evening over an almost unbroken forest of pines."

There the interesting part of the trip was over, and the next hop was to Beauvais via Tours against a bumpy head wind. Up to then, not a thing had been touched on machine or engine—in fact, the tool-roll had not been opened since leaving Stag Lane. Then a valve was adjusted, and next day the Channel was crossed in brilliant weather and Stag

Lane reached on March 29. Thus was completed a journey of 4,600 miles in under four weeks, including over a week's stay in Morocco.

A Tribute to the A.A.

Capt. de Havilland pays tribute to the Aviation Department of the Automobile Association for the way the officials prepared passports, permits, triptiques, and the rest of the paraphernalia with which it is still necessary to go armed into foreign countries, and considered their maps the best he has flown with; they were, in fact, admired and coveted in all the countries visited.

"The best route," he says, "through Spain is undoubtedly by way of Burgos, Madrid and Seville, provided there is a better way through the Pyrenees than that which we followed, and I am told that there is. One surprise was the almost total absence of bumpy conditions over the mountains anywhere. In the Pyrénées with a 30-mile-an-hour wind there certainly were a few bumps, but not so bad as I have often experienced in England. In Morocco it was often steadier than when flying at home—but all this may have been luck."

As mentioned above, Capt. de Havilland had only to replenish his oil sump once during his trip, and he used any fuel offered—sometimes petrol, sometimes benzol mixture, and at other times spirit of no particular brand—but his engine ran consistently well on all.

"The trip has provided me," says Capt. de Havilland, "with a great deal of useful information and much food for thought, and, if it were possible, I am more convinced than ever of the almost limitless future of the light aeroplane."

LIGHT PLANE CLUBS

London Aeroplane Club, Stag Lane, Edgware, Sec., H. E. Perrin, 3, Clifford Street, London, W.1.
Bristol and Wessex Aeroplane Club, Filton, Gloucester. Secretary, Major G. S. Cooper, The Aerodrome, Patchway, Glos.
Cinque Ports Flying Club, Lympne, Hythe. Hon. Secretary, R. Dallas Brett, 114, High Street, Hythe, Kent.
Hampshire Aero Club, Hamble, Southampton. Secretary, H. J. Harrington, Hamble, Southampton.
Lancashire Aero Club, Woodford, Lancs. Secretary, Mr. Atherton, Avro Aerodrome, Woodford.
Liverpool and District Aero Club, Hooton, Cheshire. Hon. Secretary, Capt. Ellis, Hooton Aerodrome.
Midland Aero Club, Castle Bromwich, Birmingham. Secretary, Maj. Gilbert Dennison, 22, Villa Road, Handsworth, Birmingham.

Newcastle-on-Tyne Aero Club, Cramlington, Northumberland. Secretary, J. T. Dodds, Cramlington Aerodrome, Northumberland.
Norfolk and Norwich Aero Club, Mousehold, Norwich. Secretary, G. McEwen, The Aerodrome, Mousehold, Norwich.
Nottingham Aero Club, Hucknall, Nottingham. Hon. Secretary, Cecil R. Sands, A.C.A., 30, Park Row, Nottingham.
The Scottish Flying Club, 101, St. Vincent Street, Glasgow. Secretary, George Baldwin, Moorpark Aerodrome, Renfrew.
Southern Aero Club, Shoreham, Sussex. Secretary, Miss N. B. Birkett, Shoreham Aerodrome, Sussex.
Suffolk Aeroplane Club, Ipswich. Secretary, Maj. P. L. Holmes, The Aerodrome, Hadleigh, Suffolk.
Yorkshire Aeroplane Club, Sherburn-in-Elmet, Yorks. Secretary, Lieut.-Col. Walker, The Aerodrome, Sherburn-in-Elmet.

LONDON AEROPLANE CLUB

(APR. 8-14).—Instructors: Captain V. H. Baker, M.C., A.F.C., and Captain F. R. Matthews. Ground engineers: C. Humphreys and A. E. Mitchell. Aircraft: The following machines were in commission—G-EBXS, G-AABL, G-EBZC and G-AABN. Total flying time for the week: 31 hrs. 30 mins. Dual instruction: 13 members received dual instruction, the time being 13 hrs. 35 mins. Solo flying: 29 members flew solo during the week, the time being 17 hrs. 55 mins. J. A. Crane made his first solo flight.

There were three blank days this week owing to the weather.
Club-house Furnishing Fund: The following donation has been received: Lieut.-Col. M. O. Darby, £3 3s. 6d.

Club Aircraft: The Club has taken delivery of the first of its D.H. Gipsy Moths G-AABN. It is hoped to take over the second this week.

BRISTOL & WESSEX AEROPLANE CLUB, LTD.

(APR. 7-13).—Pilot instructor: E. B. W. Bartlett. Ground engineer: A. W. Webb. Machines in commission: (3), TV, YH, JL. Flying time for the week: 16 hrs. 45 mins. Pupils under instruction: (6), 4 hrs. 15 mins. Soloists under instruction: (3), 3 hrs. 25 mins. "A" pilots: (9) 7 hrs. 25 mins. Passengers: (4), 1 hr. 15 mins. Test: (8) 1 hr. 15 mins.

Oh, yes, thank you, the snow has been here too, so jolly! Three days on which the most stout-hearted could fly, a sad drop in our figures. Mr. Farquharson finished his "A" tests with credit, just before the winter started afresh. Mr. Story flew his "Moth" from Lympne and Mr. Leach his Baby Avro-AUM to visit us on the 7th. There will be over 150 members and friends at our dance at the Spa Hotel on the 19th, so roll up any waverers. Poor "Brownie" sat down too heavily last Sunday and will be on the sick list for a few weeks. No need for flowers and Colonial papers need take no notice.

HAMPSHIRE AEROPLANE CLUB

(APR. 6-12).—Pilot instructors: Flight-Lieut. F. A. Swaffer, M.B.E., and Mr. W. H. Dudley. Ground engineers: Mr. E. Lenny and Mr. J. Elliott. Aircraft: D.H. 60 "Moth" G-EBOI and Avro "Avian" G-EBVL. Flying time for the week: 15 hrs. 20 mins. Pupils under instruction: (11) 5 hrs. 45 mins. "A" pilots: (11), 8 hrs. 20 mins. Passengers: (2) 25 mins. Instructors' solo and tests: (4) 50 mins.

Bad weather this week has greatly interfered with our flying. On Thursday Flight-Lieut. Swaffer and the Secretary attended a conference at the Guildhall, Portsmouth, where representatives of the principal towns concerned discussed with members of the Royal Aero Club preliminary arrangements in connection with the Schneider Trophy Contest. It is probable that our aerodrome will be the landing and parking ground for aircraft bringing visitors to view the contest.

The Chief Instructor's book on "Learning to Fly" has now been published and those interested are invited to send 7s. 6d. to the Secretary, on receipt of which a copy will be forwarded.

Members will be pleased to hear of a generous offer by one of our members of £100 towards the purchase of a new aeroplane, provided that the balance is subscribed by the remaining members of the club. No sum is too large and none is too small, and it is earnestly hoped that members and friends will assist as quickly and as generously as they can in order that the club may benefit by this kind offer.

Mr. H. F. Mase has now taken delivery of his Spartan machine and it is expected that he will begin his long flight to New Zealand in the course of a few days. He carries with him the best wishes of all members.

We are holding the last dance of the season at the Esplanade Assembly Rooms, Southsea, on Friday, April 26, and it is hoped that a large number of members and friends will be present. Tickets, price 8s. 6d. single and 15s. double, may be obtained from the Secretary.

LANCASHIRE AERO CLUB

(APR. 7-13).—Flying time 17 hrs. Instruction (8), 4 hrs. Solo flights (18), 8 hrs. 15 mins. Passenger (9), 3 hrs. 50 mins. Tests (6), 55 mins.

Instruction (with Mr. Hall): Messrs. Paddock, Goss, Ashworth, J. H., McDougall, Stern, Fallon, Wilkinson. Machines in commission, MQ, EC, QL. Soloists (under instruction): Goss, Williamson, Sellers, Forshaw, Stern.

Pilots: Messrs. Hall, R. F., Davies, R. G., Garner, Harrison, Gort, Michelson, Weale, McDougall, Meads, Fallon, Chapman, Whitehouse, Twemlow.

Passengers: (with Mr. Meads): Goss; (with Mr. Hall): R. F. Britton, Miss Harrison, Sellers; (with Mr. Mills): Stern, Jennison, Cliffe; (with Mr. Williams): Garner; (with Mr. Cohen): Miss Ree.

A week of cold and blustering weather with various minor excitements. Mr. Mills had his rudder control come adrift while flying QL in the front seat. He did quite a nice circuit and a safe landing and was able to report that the machine flew just as well without rudder. Mr. Michelson pulled an outer cover partially off the wheel by turning too fast on the ground and went into the air with the inner tube ballooning out in the most alarming fashion. Signals were made to him from the ground and he landed slowly without even bursting the inner tube. XD, while sitting innocently on the ground was charged by one of our private owners. She resisted the attack strongly but her plumage was considerably damaged in the encounter.

We were all very glad to see Mr. Dudley Salthouse, one of our earliest flying members, on the aerodrome on Sunday. He and Mr. Leete, another of our early members, have been running the Bengal Air Transport Co., out in India, and Mr. Salthouse is at present over in England on a short spell of leave.

LIVERPOOL & DISTRICT AERO CLUB

(APR. 7-13).—Machines in commission: Avro Avians WK, XX, ZM. Instructor: Flt.-Lieut. J. B. Allen. Ground Engineers, Mr. H. Pixton, Mr. Mason. Flying time, total 18 hrs. 40 mins.

Pupils, dual: (10), 7 hrs.; solo: (3), 2 hrs. 5 mins.; "A" pilots, solo (10): 6 hrs. 25 mins. Passenger flights (7): 2 hrs. 50 mins. Test flights, 20 mins.

Mr. Leete, with Mr. Davison as passenger, flew over to Woodford and called upon the Lancashire Club.

Mr. Mouldsdales evidently has some low plot brewing, one has noticed him pulling various wires — but what will the P.M.G. say?

MIDLAND AERO CLUB

(APR. 7-13).—The total flying time was 16 hrs. 3 mins. Dual: 7 hrs. 45 mins. Solo: 3 hrs. 25 mins. Passenger: 4 hrs. 25 mins. Test: 28 mins.

The following members were given Dual instruction by Flt./Lt. T. Rose, D.F.C., and Mr. W. H. Sutcliffe: G. P. Haylock, F. G. Robinson, L. W. Farrer, H. J. Barnett, C. T. Davis, M. Turner, P. B. Hackett, H. Coleman, T. G. Ellison, J. H. Stevens.

Advanced dual: Messrs. W. Evershed, G. E. C. Hill, J. A. pilots: Messrs. S. G. Hall, E. P. Lane, S. H. Smith, R. C. Baxter, E. R. King, R. D. Bednell, J. Rowley, H. J. Willis, J. Cobb, W. M. Morris, G. V. Perry, W. L. Handley.

Soloist: J. Hanford Stevens. Passengers: W. Breeden, J. Haylock, K. G. Williams, Miss J. M. Davis, T. Meakin, K. S. Neale, N. R. Greathead, S. L. Taylor, F. G. Hicks, G. Ellison, Miss R. Toppin, S. James.

High winds very much restricted flying.

NEWCASTLE-UPON-TYNE AERO CLUB

(APR. 1-7).—Instructor: G. M. S. Kemp. Engineer: K. C. Brown. Aircraft, 3 PT, QV, LX.

Flying time: 17 hrs. 45 mins. Instruction: 5 hrs. 20 mins.; Solo training: 1 hr. 15 mins. "A" pilots: 8 hrs. 55 mins. Passengers: 2 hrs. 5 mins. Tests: 10 mins.

(APR. 8-14).—Flying time: 25 hrs. 45 mins. Instruction: 7 hrs. 35 mins. Solo training: 30 mins. "A" pilots: 12 hrs. 25 mins. Passengers: 5 hrs. 5 mins. Tests: 10 mins.

On Wednesday, Mr. Bourne with Mr. Zaccola as passenger, arrived on the Moth owned by Aerofilms, and departed the next day.

The second issue of the Club's unofficial magazine made its appearance, and certain members who were in a panic were seen to heave sighs of relief.

THE NORTHAMPTONSHIRE AERO CLUB

(MAR. 31-APR. 6).—One "Moth" G.E.B.R.X. Instructor: James Bunning, G. Engineer J. Gallagher. We are able to report that "RX" has been in commission continuously. The weather has been fair but the wind contrary on several days. Pupils under instruction still number 10 and Mr. Tyzack once more holds the record for the greatest number of hours flown in the week. This member would have been solo by now but has had to go away for a few days. Total time for the week, 5 hrs. 40 mins. The club-house is now in full swing and is being used more and more. Arrangements are going ahead for the pageant, which is being held on Whit Monday. We anticipate a good show and hope that a large number of private owners will attend.

NOTTINGHAM AERO CLUB

(MAR. 30-APR. 5).—Pilot instructor: K. K. Brown. Ground engineer: F. H. Harley. Aircraft: D.H. 60 G-EBQW. Flying time, 10 hrs. 10 mins. Dual, 40 mins.; "A" licence pilots, 4 hrs. 30 mins.; soloists under instruction, 3 hrs. 20 mins.; tests, 1 hr. 40 mins.

High winds prevented Messrs. Kay and Granger from attempting to pass the tests for their Aero Club certificates. We hope to get them both through this week-end if the weather is fine.

We hope to take delivery of a machine next week to replace G-AABA, which was lost at sea.

SOUTHERN AERO CLUB

(APR. 8-14).—Flying times have kept up to a fair average, and fine weather prevailed during the week-end, which helped considerably.

Mr. Bellairs, one of our members, has returned from a visit to South Africa, and has been flying his Avian G-AADF.

On Sunday, Mr. H. R. Law and a friend visited us on his Moth YJ.

SUFFOLK & EASTERN COUNTIES AEROPLANE CLUB

(APR. 7-13).—Chief instructor: G. E. Lowdell, A.F.M. Assistant instructor: Captain G. A. Pennington. Ground engineer: E. Mayhew. Machines: Four Blackburn "Bluebirds," RE, SZ, UH and ABE. Aerodromes: Hadeleigh, Suffolk, and Marshall's Aerodrome, Cambridge. Seaplane Base: Brightlingsea, Essex.

Total flying time, 17 hrs. 35 mins. by Suffolk and Cambridge Clubs, as follows:—

Suffolk Aero Club.—Flying time, 9 hrs. 30 mins. Eight members were given dual (4 hrs. 15 mins.). One member flew solo under instruction (15 mins.). Flights were made by 3 "A and B" Licence members (2 hrs. 10 mins.). Nine passengers were carried (2 hrs. 20 mins.). Six tests were made (30 mins.). Two new members started instruction during the week. Bad weather reduced flying to a considerable extent.

Cambridge Aero Club.—Flying time: 8 hrs. 5 mins. Four members were given dual (1 hr. 10 mins.). One member flew solo under instruction (40 mins.). Flights were made by three "A" licence members (1 hr. 35 mins.).

Manchester's Enterprise

NORTHERN AIR LINES (MANCHESTER) LTD., propose to open their services from the Air Port of Manchester, Wythenshawe, near Northenden, on April 22, 1929. The first and opening journey will be made by: The Lord Mayor of Manchester, Colonel Westcott; the Chairman of the Aerodrome Committee, Councillor Davy; The Deputy Chairman of the Aerodrome Committee, Alderman Carter; and the Town Clerk of Manchester. They will leave Manchester during the morning on a flight to London and will land at Croydon, where they will meet The Secretary of State for Air, Sir Samuel Hoare, who will hand to them the licence for the new Municipal aerodrome at Manchester. Manchester will thus become the first city in Great Britain to have a Municipal air port. The pilot of the aircraft carrying the Lord Mayor and party will be Capt. A. N. Kingwill, the chief pilot of Northern Air Lines, Ltd. He will be accompanied by Mr. F. V. Holmes, the general manager of the

Seven passengers were carried (4 hrs. 20 mins.). Two tests were made (20 mins.).

The Cambridge Club is now operating from Marshall's aerodrome on the Newmarket road. This aerodrome is right on the borders of the town and has been approved for use by the club by Sir Sefton Brancker who visited Cambridge during the week. As there is shed accommodation, machines and an instructor will be stationed permanently at Cambridge in future.

FROM THE FLYING SCHOOLS

Brooklands School of Flying, Brooklands Aerodrome

(APR. 8-14).—Instructors for the week: Capt. H. D. Davis, A.F.C.; Capt. E. A. Jones; Maj. C. M. Pickthorn, M.C.; J. M. Oliver. Machines in commission: WJ, DT, MV, AG, YO, EM, CA. Flying time, 12 hrs.

It has been a bad week for flying owing to very high winds all through the week, and finally, impenetrable fog over the week-end.

Our new machine, DT, is now in action, and is very pleasant to handle in every way. The school has sold MV, and this machine has been replaced by Mark II "Moth" G-EBPR.

Phillips and Powis School of Flying, Reading Aerodrome

(MAR. 31-APR. 6).—The following pupils took dual instruction under Flying Officer R. T. Shepherd: Messrs. Adams, Parsons, Heatt, Broad, Guard, and Swann.

The following took dual under Flying Officer Caulfield: Mrs. Morris and Mr. Swann.

Total flying time for the week, 13 hrs. 30 mins., dual being 5 hrs. 5 mins. and passenger flights 8 hrs. 25 mins.

Miss Grieveason has joined the school and will begin her instruction on Saturday next.

OVERSEAS CLUBS

DELHI FLYING CLUB, LTD.

(FEB. 26-MAR. 6).—Flying time: 21 hrs. 45 mins. Dual: 13 hrs. 15 mins. Solo: 1 hr. 45 mins. Pleasure: 4 hrs. Tests: 2 hrs. 45 mins.

Dual flying—With Mr. A. I. Riley: Flight-Lieut. Hanly, R. E. Grant Govan, Capt. Herbert Stepney, B. E. Wrigley, Saied-uddin, Ragbir Singh, Zorawar Singh, Bhagat B. Lal.

The club's congratulations are due to Col. Turner, D.S.O., who got through the test for pilot certificate "A."

Solo flying: Flight-Lieut. Hanly had his first flight on Tuesday, March 5. Among the distinguished visitors to the club was his Excellency the Viceroy's son, who had his flight in the club aeroplane on March 2.

(MAR. 7-13).—Pilot instructor: A. I. Riley. Ground engineer: A. E. Clifford. Flying time: 13 hrs. 15 mins. Dual: 4 hrs. 45 mins. Solo: 2 hrs. 30 mins. Pleasure: 3 hrs. Test: 2 hrs.

(MAR. 14-20).—Flying time: 19 hrs. 30 mins. Dual instruction: 8 hrs. 15 mins. Solo: 5 hrs. 15 mins. Pleasure: 3 hrs. Test: 3 hrs.

Instruction—With Mr. Riley: Capt. Herbert Stepney, Rai Gopal Das, Bhagat B. Lal, Saied-uddin, G. N. Vatal, Zorawar Singh, R. N. Chawla. Soloists: Col. Turner, Bhagat B. Lal, R. N. Chawla, Flying Officer C. C. Williams, Flying Officer G. B. Beadsworth, Flying Officer Phillips.

Flight-Lieut. G. J. Hanly passed his test for pilot's certificate "A" and Mr. Bhagat B. Lal went up solo first time on March 17, and it is hoped that he will also pass the test of "A" certificate in the next week.

THE KARACHI AERO CLUB, LTD.

(FEB., 1929).—With our two Gipsy-Moth machines we have during February accomplished 84 hrs. flying, which is undoubtedly a very good start. Our membership at present numbers nearly 120, which includes 36 flying members, of whom 13 are Indians and the remainder, including two women, British. The club's pilot instructor is Flight-Lieut. William Jones, R.A.F.O., and our aerodrome is at present situated on the Civil Aerodrome, Drigh Road, some 10 miles out of Karachi, where we have the use of the Imperial Airways hangar. We, however, propose to move to an old landing ground some 2 miles out of Karachi, where we propose erecting a hangar of our own. This should stimulate the interest of Karachi citizens even further. We anticipate before the end of March passing out at least four "A" pilots, two of whom would be *ab initio* pilots.

VICTORIA AERO CLUB, B.C.

(FEB. 22-28).—During February this club has put in 21 hrs. 15 mins. total flying time on its one Moth.

Messrs. H. McGiverin, Cooper, E. Hanbury, J. Gray, G. S. Burns, S. Pickles, A. W. Carter and A. H. Wilson flying solo.

Messrs. H. McGiverin, Cooper, E. Hanbury, H. S. Jones, A. West, G. S. Burns, P. J. Foster, L. Stewart Macleod, and F. McPherson undertook dual instruction. Instructors: A. W. Carter and A. H. Wilson.

Maj. D. R. McLaren of Western Canada Airways, Limited, was given a passenger flight by our President, Mr. A. W. Carter, over the city. Associate member: Miss G. Smith, was also given a passenger flight.

Owing to the muddy nature of the runways this club had to suspend its flying operations for several days.

company, and Mr. John F. Leeming. The mayoral party will return to Manchester by air during the afternoon.

New Aircraft Company

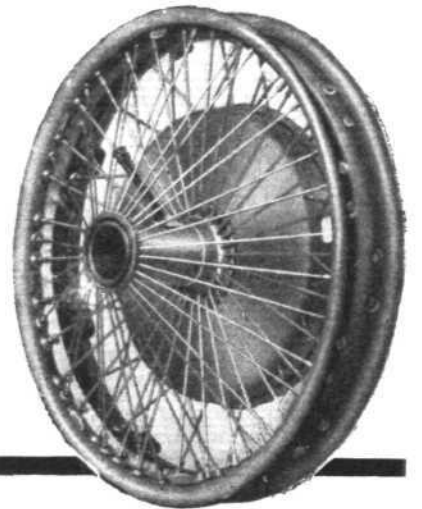
THE Comper Aircraft Co., Ltd., has been formed. It is a private company, and the capital has been raised by a few friends of Flight-Lieut. N. Comper, the designer of the C.L.A. light aeroplane, who has resigned from the R.A.F. These friends include Mr. G. H. Dawson, who owns the buildings on the Hooton Park Aerodrome and who is the chairman of the company and works organisation director; and Flight-Lieut. J. B. Allen (the instructor of the Liverpool and District Aero Club), who is secretary *pro tem.* of the company and will later on be the demonstration pilot. Flight-Lieut. N. Comper will be the designer and managing director. The company's programme will provide aircraft suitable for private clubs, private owners, and general commercial users of aircraft. The works will be at Hooton Park Aerodrome, Cheshire.



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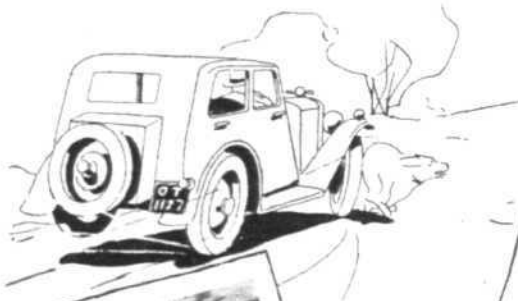
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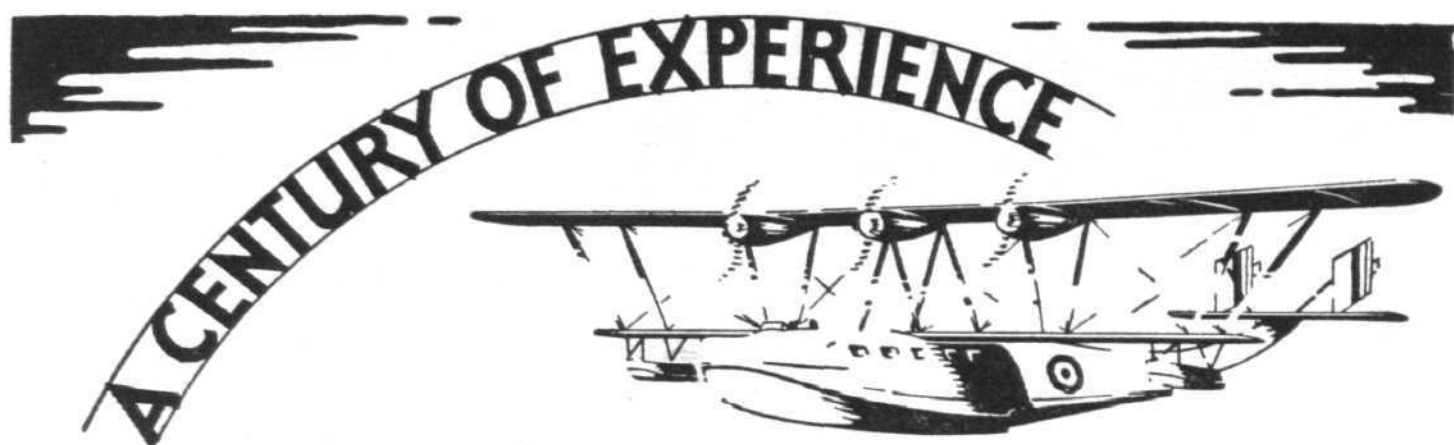


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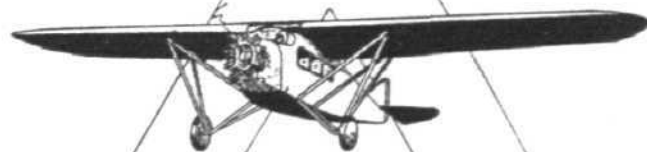
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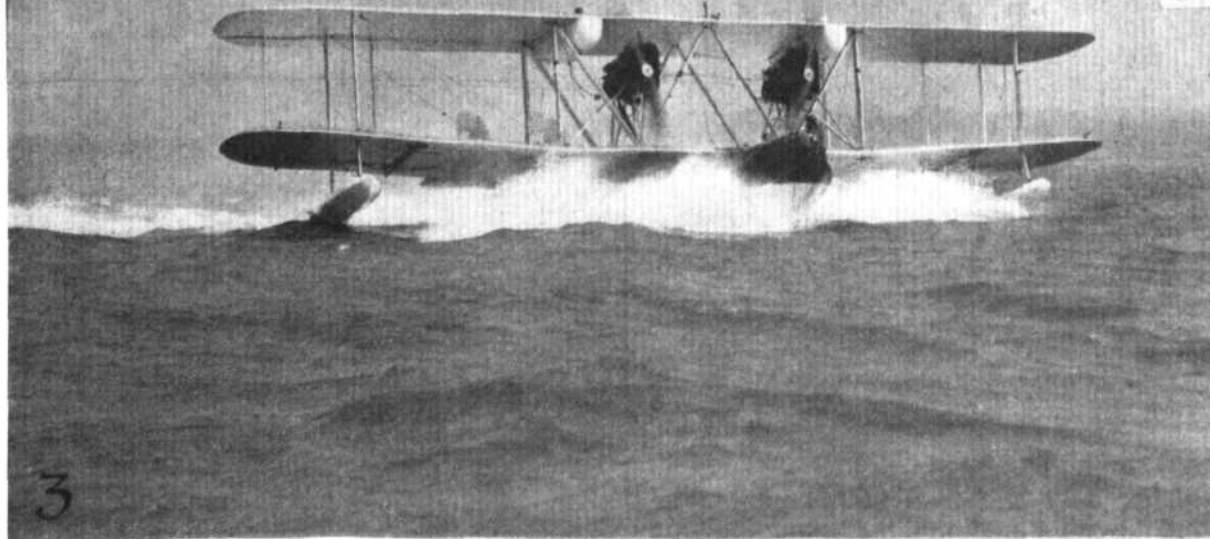
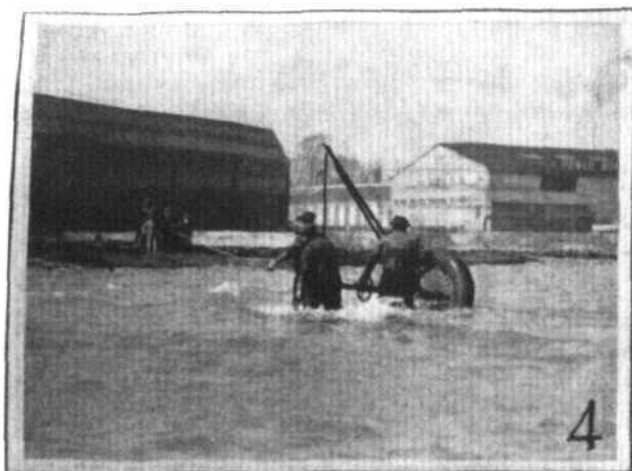
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ARGENTINE GETTING UP-TO-DATE EQUIPMENT: One of the batch of Supermarine "Southampton" flying-boats now being delivered to the Argentine Navy on test over Southampton Water: 1, the machine being launched down the slipway at Hythe. 2, removing the beaching trolley. 3, taxiing in a stiff wind and rough sea. 4, hauling the beaching trolley ashore.

["FLIGHT" Photographs]

EDDIES

THE move to cut drastically the Air Estimates in Germany appears to be causing serious consternation.

Possibly, however, it may be a clever move on the part of the Government to shift the onus during these years of air missionary work on to private capitalists' shoulders, as already an Air Loan, supported by some of the leading banks and industrial concerns, is well to the fore. And it is very significant that the one department which is not likely to suffer in this economy campaign is the training for air-pilots. After all, it may still be found that the British *festina lente* method in establishing air routes is the wisest in the end.

"THEN and Now."—Canon B. L. Jackson, The Rectory, Belmullet, Co. Mayo, writes: "In 1827, 102 years ago, my father, the late Colonel James Jackson, 14th Madras N.I., sailed for India as an ensign in the H.E.I.C.S., aged 16 years. The voyage took six months."—And thus the Rev. H. S. Cochran, of Horley, Surrey: "The new air route to India is timed to take seven days. In 1869—just 60 years ago—my father, the late Colonel F. Cochran, proceeded to India with his regiment, the 37th Hants Regiment, in one of the last of the old sailing ships. Sailing from Queenstown to Calcutta "direct"—i.e., calling nowhere *en route*—round the Cape, the voyage took 3½ months, which was considered a good passage. The ship took half a battalion."

Now through aviation, about six days, yet this is only the first stage in the annihilation, by flying, of distance.

FROM a National point of view it is very heartening to read of the latest anti-torpedo and aircraft-bombing precaution installed in the modern British battleships *Nelson* and *Rodney*. It is claimed—may even said to be proved—that amongst the features of these great vessels is a steel deck—no less than 6½ in. thick—constituting the heaviest horizontal protection ever fitted to a ship, making them bomb proof, whilst the hull and gun turrets are so armour protected that they could not under ordinary battle conditions be perforated by enemy shells—and thus it is claimed that naval defence appears to have mastered the attack of aeroplane and submarine. Put picturesquely, "Aircraft bombs might rain down but they could not pierce these massive decks. . . Now that the secrets of *Nelson* and

her consort are known, the champions of the aeroplane and the submarine will be well advised to recast their familiar arguments about the decadence of the great ship."

THEREFORE should the Nation rejoice accordingly, but like a good many previous *certain* safety devices, there is generally a catch in it somewhere, so it would be well not to be too sure until such time as proof in actual action has set its seal upon the claims. In fact, a critic, Mr. E. N. B. Bentley, of this immunity from damage is not quite so convinced and gives his reasons therefor. He argues that the claim is based on an erroneous conception of modern methods of air attack and proceeds upon well-known data thus to paint the other side of the picture:—

"The possibility of heavy deck armour on ships was foreseen by the Air Force years ago, and new methods of attack were devised by means of which a ship could be sunk without attempting to pierce the deck. One method is to drop bombs with delay-action fuses close alongside the hull, so that they will explode against the side of the ship below the level of the armour-plating.

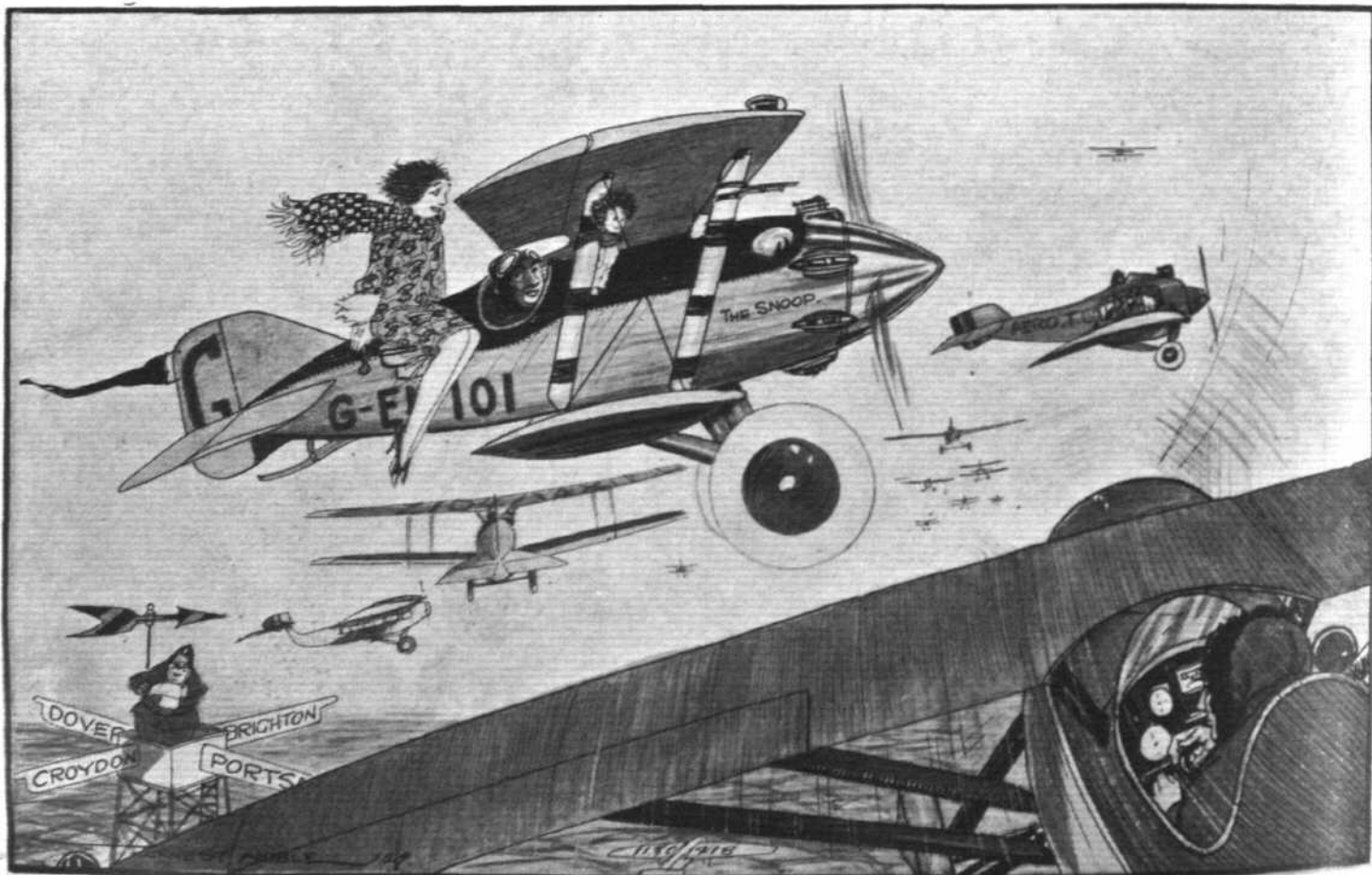
Another method is to drop a bomb which will explode beneath the keel of the ship and break its back. The latter idea may seem to be claiming too much for the powers of the bomb, but a calculation of the stresses set up by a sudden blow concentrated at one point on the keel shows this to be possible. Both methods of attack have been carried out successfully in actual trials.

It may be as well to point out that a bomb containing ten times the weight of explosive in a standard torpedo is easily carried by one aeroplane, and bombs of more than twice this size have been carried.

The best argument in favour of torpedo attack by air is stated by giving the results of a test carried out in the Channel some years ago. Under cover of a smoke screen created by aircraft the torpedo-carrying aeroplanes attacked the *Queen Elizabeth*, and put more torpedoes into her than she is designed to carry. The complete operation, including the laying of the smoke screen, took about 1½ mins.

YES, it would be well not to rely entirely upon complete non-vulnerability.

AEOLUS



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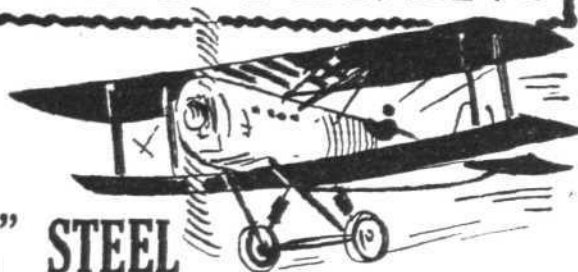
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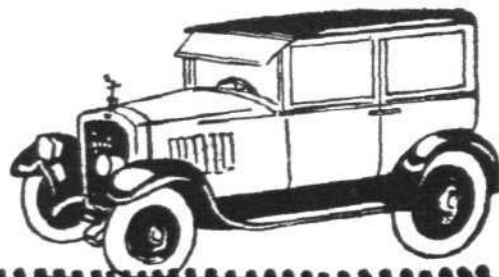
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THE ROYAL AIR FORCE

London Gazette, April 12, 1929

General Duties Branch

Flight-Lieut. L. J. Riordan, A.F.C., is placed on retired list on account of ill-health (April 3); Flying Officer G. Rose is transferred to Reserve, Class C (April 7); Flying Officer L. S. Birt is transferred to Reserve, Class A (Jan. 1). (Substituted for Gazette, Jan. 1.) The short service comm. of Pilot Officer on probation R. G. Cruikshank is terminated on cessation of duty (April 10).

Medical Branch

A. P. Atkins (temp. Lieut., General List, Army, Dental Surgeon) is granted a temp. comm. as a Flying Officer (Dental) on attachment to the R.A.F. (March 25).

RESERVE OF AIR FORCE OFFICERS

General Duties Branch

The follg. are granted commns. in Class AA (ii) as Pilot Officers on probation:—T. F. Owen (March 25); R. D. A. Hodson, J. W. Bradley, P. Johnson (March 26). The follg. officers on probation are confirmed in rank:—Pilot Officer B. N. H. Thornely (March 19); Flying Officer A. T. E. Eadon, Pilot Officer J. M. Longley, Pilot Officer G. B. K. James (April 2).

The follg. officers are transferred from Class A to Class C:—Flight-Lieut. F. J. Watts (Dec. 19, 1928); Flying Officer P. J. Waller (Feb. 26). Flying Officer A. D. Page, M.M., is transferred from Class C to Class A (March 17). The commission of Pilot Officer on probation T. McDonald is terminated on cessation of duty (March 19).

ROYAL AIR FORCE INTELLIGENCE

Appointments.—The following appointments in the Royal Air Force are notified:—

General Duties Branch

Group Captain H. R. Busteed, O.B.E., A.F.C., to R.A.F. Depot, Uxbridge, Supernumerary whilst attending Senior Officers' Tech. Course at Portsmouth; 13.4.29.

Squadron-Leaders: F. P. Don, to No. 33 Sqn., Netheravon; 10.4.29. C. E. H. C. MacPherson, to No. 7 Sqn., Worthy Down; 10.4.29. F. H. Coleman, D.S.O., to No. 7 Sqn., Worthy Down; 4.4.29. J. K. Summers, M.C., to H.Q., Wessex Bombing Area; 5.4.29. F. H. Laurence, M.C., to No. 204 (F.B.) Sqn., Cattewater; 1.2.29.

Flight-Lieutenants: C. P. Brown, D.F.C., to No. 84 Sqn., Iraq; 16.3.29. H. L. P. Lester, to R.A.F. Depot, Uxbridge; 10.3.29. R. H. Horniman, to No. 203 Sqn., Iraq; 14.3.29. W. F. Dickson, D.S.O., D.F.C., to No. 1 (Indian Wing) Station, India, instead of No. 2 (Indian Wing) Station, as previously notified; M. F. Browne, to Home Aircraft Depot, Henlow; 16.4.29. G. W. Bentley, D.F.C., to No. 204 (F.B.) Sqn., Cattewater; 1.4.29. H. A. J. Wilson, O.B.E., to No. 10 Group H.Q.; 1.4.29. C. R. Keary, to Air Ministry (Directorate of Operations and Intelligence); 10.4.29. G. H. Stainforth, to Marine Aircraft Experimental Estab., Felixstowe; 17.9.28.

Flying Officers: B. T. Crook, to H.Q., Air Defence of Great Britain; 4.4.29. R. L. R. Atcherley, to Marine Aircraft Experimental Estab., Felixstowe; 6.10.28. H. R. D. Waghorn, to Marine Aircraft Experimental Estab., Felixstowe; 4.2.29. H. Walker, to No. 35 Sqn., Bircham Newton; 22.3.29. F. R. Worthington, to No. 204 (F.B.) Sqn., Cattewater; 2.4.29. J. H. Edwardes-Jones, to No. 2 Flying Training Sch., Digby; 3.4.29.

Pilot Officers: K. F. Jones, to 201 (F.B.) Sqn., Calshot; 6.3.29. R. B. Council, to 201 (F.B.) Sqn., Calshot; 6.3.29. C. Ryley, to Schl. of Naval Co-operation, Lee-on-Solent; 9.3.29. J. A. G. Baker, to 17 Sqn., Upavon; 5.3.29. E. G. Banham, to 19 Sqn., Duxford; 5.3.29. J. Beaumont, to 4 Sqn., S. Farnborough; 5.3.29. M. I. Barnett, to 56 Sqn., North Weald; 5.3.29. F. A. R. Bishop, to 41 Sqn., Northolt; 5.3.29. B. S. Bramble, to 1 Sqn., Tangmere; 5.3.29. R. Chadwick, to 4 Sqn., S. Farnborough; 5.3.29. R. D. Cotton, to 19 Sqn., Duxford; 5.3.29. W. J. Crisham, to 19 Sqn., Duxford; 5.3.29. R. S. Darbyshire, to 2 Sqn., Manston; 5.3.29. F. P. Donovan, to 4 Sqn., S. Farnborough; 5.3.29. H. J. Forster, to 24 Sqn., Manston; 5.3.29. F. C. G. Freeman, to 1 Sqn., Tangmere; 5.3.29. O. I. Gilson, to 29 Sqn., North Weald; 5.3.29. E. S. Greenwood, to 3 Sqn., Upavon; 5.3.29. A. N. E. Hall, to 17 Sqn., Upavon; 5.3.29. C. P. Hanlon, to 43 Sqn., Tangmere; 5.3.29. J. A. Harris, to 25 Sqn., Hawkinge; 5.3.29. T. R. Hope, to 1 Sqn., Tangmere; 5.3.29. H. T. Lines, to 26 Sqn., Catterick; 5.3.29. J. H. Lock, to 19 Sqn., Duxford; 5.3.29. R. Mountain, to 32 Sqn., Kenley; 5.3.29. V. H. Nicolay, to 4 Sqn., S. Farnborough; 5.3.29. J. S. Pole, to 111 Sqn., Hornchurch; 5.3.29. G. E. F. Proctor, to 2 Sqn., Manston; 5.3.29. J. B. W. Pugh, to 43 Sqn., Tangmere; 5.3.29. C. H. Robbins, to 25 Sqn., Hawkinge; 5.3.29. N. X. Sheldrick, to R.A.F. Base, Calshot; 5.3.29. L. H. Snelling, to 25 Sqn.,

Hawkinge; 5.3.29. F. B. Taylor, to 16 Sqn., Old Sarum; 5.3.29. R. F. A. W. Williams, to 2 Sqn., Manston; 5.3.29. R. D. Williams, to No. 204 (F.B.) Sqn., Cattewater; 25.3.29. J. E. Beynon, to No. 2 Armoured Car Coy., Middle East; 23.3.29.

Pilot Officers: M. V. de Satge, to Aircraft Depot, India, instead of No. 27 Sqn., as previously notified. W. K. Beisiegel, to Schl. of Naval Co-operation, Lee-on-Solent; 4.4.29. D. J. Waghorn, to Schl. of Naval Co-operation, Lee-on-Solent; 3.4.29. The following Pilot Officers are all posted to No. 5 Flying Training Sch., Sealand, for flying training on April 2, 1929:—J. E. Askworth, J. D. Baker-Carr, L. W. A. Binks, G. H. Binns, P. F. Corbett, R. C. Dawkins, D. R. C. B. de Sarigny, R. F. Fletcher, D. A. Gowing, T. W. Hodgson, K. G. Hucker, B. J. Hurren, G. B. Keily, F. Lemon, C. R. Lousada, A. R. MacKewn, A. A. McLaren, H. E. Mayes, H. L. Messiter, J. S. D. Miles, C. V. Ogden G. J., Pawson, C. M. Rees, H. A. Shotter, J. C. W. Staveley, E. A. H. Tanner, A. J. Tunnard, A. C. P. Westhorpe, and D. E. T. Whittlesea.

Stores Branch

Flying Officer: H. J. Young, M.B.E., to H.Q., Air Defence of Gt. Britain; 24.3.29.

Pilot Officer: J. E. Reynolds, to No. 603 Sqn., Turnhouse; 18.3.29. **Flight-Lieut.** R. A. Young, to H.Q., Iraq, instead of Aircraft Depot as previously notified; 23.2.29.

Flying Officers: A. A. Quayle, to Aircraft Park, India, instead of Aircraft Depot as previously notified. W. A. G. Goldsworthy, to No. 1 Stores Depot, Kidbrooke; 11.4.29.

Accountant Branch

Flight-Lieut. R. G. D. Thomas, to No. 5 Flying Training Schl., Sealand; 17.4.29.

Flying Officer: S. C. George, to No. 47 Sqn., Middle East; 14.3.29.

Medical Branch

Sqn. Leaders: E. N. H. Gray, D.P.H., to H.Q., Coastal Area; 27.3.29. J. R. Crolus, M.B., to Home Aircraft Depot, Henlow; 22.3.29.

Flight-Lieuts. R. Thorpe, to Aeroplane and Armament Experimental Estab., Martlesham Heath; 9.4.29. S. F. Heatley, M.B., B.A., to R.A.F. Depot, Uxbridge; 17.11.28.

Flying Officer: N. M. Jerram, to R.A.F. Practice Camp, Sutton Bridge; 1.5.29.

Wing Commander R. H. Knowles, M.D., D.P.H., to No. 21 Group H.Q.; 3.5.29.

Flight-Lieut. A. Harvey, M.B., to Station H.Q., Heliopolis, Middle East; 3.3.29.

Flying Officers: A. P. Atkins (Dental), to R.A.F. Depot, Uxbridge; 25.3.29. B. L. Harrington (Dental), to R.A.F. Depot, Uxbridge; 18.3.29. G. H. J. Williams, to R.A.F. Practice Camp, North Coates Fitties; 8.4.29.

Chaplain's Branch

Rev. J. Firth, M.C., to R.A.F. Reception Depot, West Drayton;

The Economical Air Force

THE Chancellor of the Exchequer, Mr. Winston Churchill, in his Budget speech was very complimentary to the economic value of the Royal Air Force. He said, incidentally, that "It was, and I believe it still is, common ground that the Air Force should be expanded into some reasonable defensive relation with those of our Continental neighbours, and programmes were approved six years ago which would have carried the expense of the Air Force in the ordinary course this year to £21,000,000. The actual expenditure is £16,000,000. It is mainly through the agency of the Air Force and the thrifty genius of Sir Hugh Trenchard that my right hon. friend the Secretary of State for Air has been able to bring the cost of the Middle East, which before the Cairo Conference of 1921 was £44,500,000 a year, down to just over £500,000 a year at the present time, and to effect a reduction, within the lifetime of the present Parliament, of £4,250,000 a year. In all, the reductions made by the present Government under these four heads—that is, the three fighting services and the Middle East—aggregate over £7,500,000 a year. I hope the Committee will excuse me for mentioning such a trifle, in view of the megalomaniac projects of expenditure which we are told are now so popular."

R.A.F. Awards

It is announced in the *London Gazette* that the King has approved of the award of the Medal of the Military Division of the Most Excellent Order of the British Empire to Flying Officer

Walter Anderson, Royal Air Force, and Corporal Thomas Patrick McTeague, D.C.M., Royal Air Force, for gallantry.

Pilot Officer H. A. Constantine, while flying an aeroplane off Leysdown on December 10, 1928, crashed into the sea, about 200 yards from the shore. Corporal McTeague and Flying Officer Anderson immediately entered the sea from the shore and swam to his assistance. The weather was bitterly cold; an on-shore wind was blowing and the sea was fairly rough. Constantine, fully clothed and suffering from injuries and shock, commenced to swim ashore, but was in a state of collapse when the first swimmer (McTeague) reached him. McTeague, though exhausted himself, supported him until the arrival of Anderson, and Constantine was then brought to safety (this involving swimming for a distance of about 100 yards) by their combined efforts. The extremely prompt and timely action of Anderson and McTeague, and the gallantry and persistence they displayed, undoubtedly saved the life of Constantine.

The Duration Record

OWING to the unfavourable weather in Central Africa, the duration and distance record attempt in the Fairey (Napier) monoplane may be directed towards India. Sqdr.-Ldr. A. G. Jones-Williams and Flight-Lieut. N. H. Jenkins, the crew, are still at Cranwell, ready to start. No definite decision as to the route has been made, but it seems certain that an alternative route to that from England to S. Africa will have to be chosen.

CORRESPONDENCE

BUSINESS MAGNATE'S MISHAP

[2187] May we draw your attention to a slight error in the item "Business Magnate's Mishap," published in FLIGHT of April 11, No. 1059, stating that the monoplane was seriously damaged?

Mr. Geysendorffer gave us the following statement about this forced landing:—

"When flying over the Ligurian Sea, between Livorno and Nice, one of the valves of the left engine broke down and disappeared in the cylinder. The pilot immediately cut out this engine and continued the flight on the remaining two. The machine being heavily loaded with petrol, the pilot deemed it necessary to lighten the plane by letting off part of the petrol. He did so by using the dumping device installed in the petrol tanks.

"With a view to the fact that the side engines too are fitted with three-bladed propellers so that these props caught a great amount of air pressure, it was not possible to fully stop the engine, and consequently one cylinder was torn off by the destroying action of the valve in the cylinder. The remaining piston and connecting rod caused further damage to the motor, which resulted in the loss of two more cylinders.

"The vibration of this engine then became so heavy that the pilot deemed it wise to land the machine at the first suitable spot. As soon as they reached the coast he put the plane down on the beach near San Remo and made a perfect landing without the slightest damage to the machine.

"With a view to the fact that the beach is very rocky, it will be impossible to start from this place on two engines only. The plane will be transported to the nearest aerodrome, where a new engine, which meanwhile has been ordered, will be fitted, after which the machine will be flown over to Amsterdam for general inspection, to be prepared for Mr. van Lear Black's next trip to Tokyo."

B. STEPHAN,

N.V. Nederlandsche Vliegtuigenfabriek Fokker.
Amsterdam, April 13, 1929.

THE ROYAL AERO CLUB AND CLUB PREMISES

[2188] May I call your attention to an inadequacy and an inaccuracy in your Royal Aero Club notices to members?

In the reference to club premises there is no mention of the fact that after a resolution giving powers to the Committee had been passed it was revealed that the Committee was already in favour of being associated with the Society of Motor Manufacturers and Traders in a joint housing scheme. This suggestion was very strongly criticised by several speakers, and no speaker who is not a member of its Committee expressed approval. The feeling of the meeting was very decidedly against this proposal; but no resolution nor amendment was put forward.

Into the merits of this question there is no need to enter now.

The inaccuracy I also mentioned lies in the fact that at least two of the speakers whose names your report gives did not speak on the question of the housing of its Club: they spoke on other matters.

C. C. TURNER.

P.S.—I wish more members would attend these meetings.
London, April 16, 1929.

[The report was as officially supplied.—E.D.]

COMPANY DOINGS

Handley-Page, Ltd.

The Ordinary General Meeting of Handley Page, Ltd., was held on April 8, with Mr. S. R. Worley, Chairman of the company, presiding. The available profits were £34,561. In the course of his speech, Mr. Worley quoted the following remark of Sir Phillip Sassoon in the House of Commons:—"I should like to mention the automatic slot device, which I hope will do more to prevent accidents than anything else which has been invented."

The Chairman, continuing, mentioned the wide adoption of the slotted wing in the R.A.F., and the settlement of the company's claim for compensation in respect of their patents in Great Britain. He was glad to inform them that an agreement had been reached with the Air Ministry recently, which involved the payment by the Government of £100,000 by instalments.

Concerning the company's prospects for 1929, it was understood that the company would receive a fair proportion of the work under the Government's construction programme. With regard to civilian work, a contract had been placed with the company for new aircraft required for the England to India Air Service, operated by Imperial Airways. This new fleet would be of an entirely new design, each aircraft capable of carrying up to 40 passengers and crew. The machines would be fitted with four engines with a total horse-power of 2,000, and capable of flying on any three engines. These multi-engined aircraft, fitted with slotted wings, would represent the very latest development of aircraft design and construction, and would cater particularly for the passengers' comfort and convenience in travel. The prospects, therefore, of work for this year were quite good.

Their manufacturing activities necessitate the use of an aerodrome for testing purposes, and for some time their directors have been on the lookout for suitable land for an aerodrome. They had found about 150 acres of very suitable ground near Radlett. The preliminary contract had been signed for the acquisition of this land at what might be regarded as a reasonable figure. On this land they intended to erect the necessary buildings for assembling and testing aircraft, but continue manufacturing operations at Cricklewood.

Mr. F. Handley Page, C.B.E. (managing director), in seconding the resolu-

tion, mentioned, in connection with the slotted wing, that in reaching agreement with the Air Ministry, they had to take into account the research work done on the slotted wing by official organisations. He would like, in particular to express their appreciation of the work done by Mr. McKinnon Wood at Farnborough, Mr. Stevens at Martlesham Heath, and Mr. Irving at the National Physical Laboratory, under the direction of Mr. Wimperis, the Director of Scientific Research. Taking that into account, they felt justified in accepting a much lower figure than that which they considered the real value of the patents, and which, probably, by presenting a claim before the Courts, they could have obtained.

Their chairman had announced the terms of the settlement under which the Air Ministry pay the sum of £100,000 in respect of the patents in Great Britain. The contract was signed only recently, and he collected, from the Air Ministry, the first cheque on account.

The details of their licence agreement with the United States were given at their meeting last year. They have, during the year, concluded an agreement for the sale of a portion of their rights in Japan, and, in addition, had granted licences for service and commercial use in France, Germany, Italy, Canada, Great Britain and the United States. Negotiations were proceeding in regard to the grant of licences or the disposal of rights in other countries. Were they free agents in this matter they would retain the capital assets of patents and only license the users of patents. The principal purchasers of aircraft were, however, Governments who had plenary powers to acquire those rights subject to agreement or arbitration as to value. Such disposal could only ultimately lead to a restriction of their manufacturing and normal business activities.

He would again issue a word of warning to those who expected an immediate return of large amounts from their patent rights. Agreements such as that now happily concluded took time to negotiate, but the unqualified admission of validity, after most searching investigation, by the Air Ministry, and the payment now agreed upon for Service rights in this country, warranted a substantial value being placed upon the patent rights of which they had yet to dispose.

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SKYWAYS, LTD., 28, Hill Rise, Richmond, Surrey.—Capital, £100 in £1 shares. Instructors in aviation and aerial navigation, aerial and ground signalling, etc. Directors: W. Knox (permanent managing director and chairman), 28, Hill Rise, Richmond, Surrey; A. A. Anderson, 8, Dawson Road, Byfleet, Surrey.

PUBLICATIONS RECEIVED

U.S. National Advisory Committee Reports: No. 293. Two Practical Methods for the Calculation of the Horizontal Tail Area Necessary for a Statically Stable Airplane. By Walter S. Diehl. No. 294. The Measurement of Maximum Cylinder Pressures. By Chester W. Hicks. No. 295. The Variation in Engine Power with Altitude Determined from Measurements in Flight with a Hub Dynamometer. By W. D. Cove. No. 300. The Twenty-Foot Propeller Research Tunnel of the National Advisory Committee for Aeronautics. By Fred E. Weick and Donald H. Wood. No. 314. Drag and Cooling with Various Forms of Cowling for a "Whirlwind" Radial Air-Cooled Engine—II. By Fred E. Weick. United States Government Printing Office, Washington, D.C., U.S.A.

AERONAUTICAL PATENT SPECIFICATIONS

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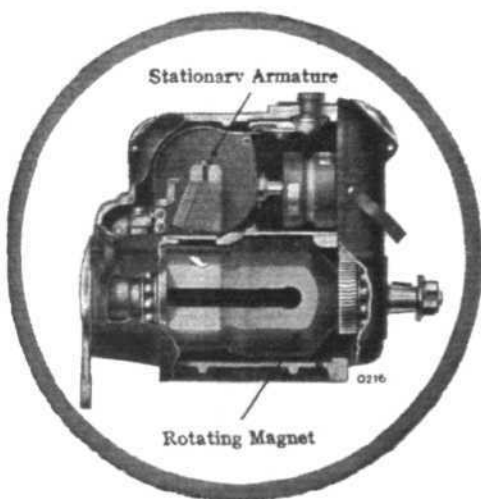
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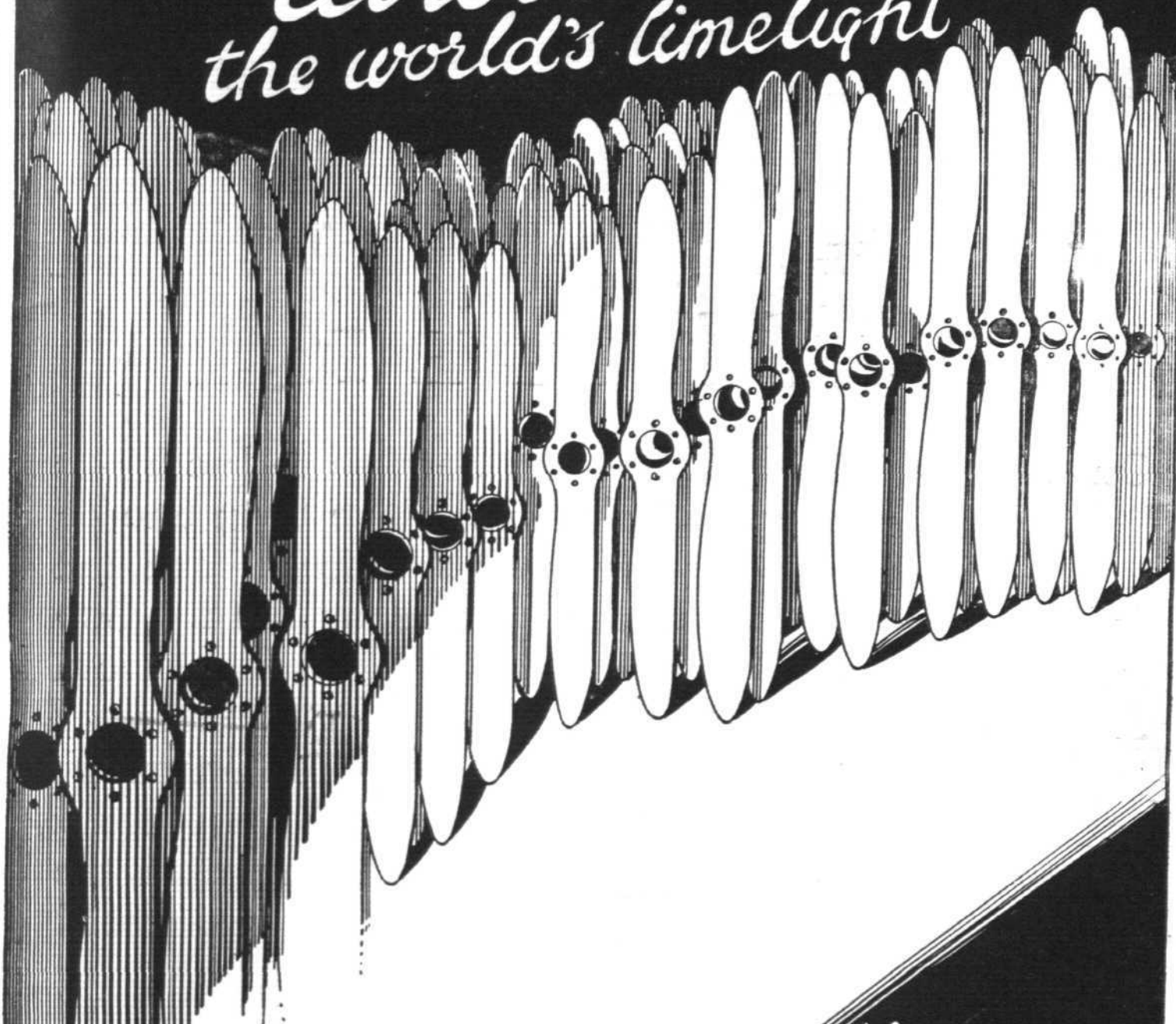
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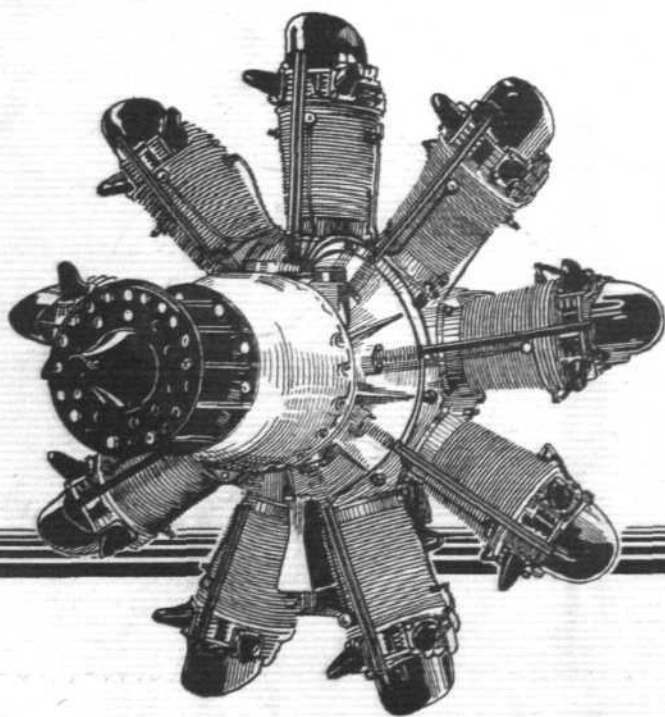
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